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A REFERENCE

FROM

THE BENGAL CIVIL FUND,

WITH A

COMPLETE SET OF NEW TABLES

FOR THE

VALUATION OF ITS LIABILITIES,

AND

AN EXPLANATORY REPORT ON THEIR CONSTRUCTION AND APPLICATION, WITH PRACTICAL OBSERVATIONS

ON THE

STATE AND PROSPECTS OF THE FUND.

Dated London, 21st June, 1851.

1507

BY

GRIFFITH DAVIES, F.R.S.,

ACTUARY TO THE GUARDIAN ASSURANCE OFFICE AND TO THE REVERSIONARY INTEREST SOCIETY.

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To Messrs. Coutts and Co.,

Agents, Bengal Civil Fund,

London.

Gentlemen,

Referring to my letter of the 7th May last, I am now directed by the Managers to forward the several papers specified in the annexed schedule, and to request that, having engaged the services of Mr. Griffith Davies, of London, the Actuary who was employed in the revision of the rules of the Bombay Fund, you will make the papers over to him, to correct the calculations on which the new rules are based, and report fully in respect to what may be necessary to ensure the stability of the Fund for the objects which it is now intended to meet. As to the remuneration which may be due to Mr. Davies, the Managers request the favor of your settling with that gentleman.

2. What these objects are will be readily apparent to Mr. Davies on a perusal of the accompanying reports of the Committee employed to draw up the proposed rules; and the statements furnished of the ages of the Subscribers, and their families, of existing incumbents on the Fund, and their ages, with the accounts of the existing and expected assets and liabilities will, it is hoped, afford sufficient data for his enquiries. From the reports of the Committee it will be perceived that whilst there are certain points which the Subscribers have determined finally to adopt, supposing the

Actuary finds the calculations and assumptions to be correct, there are others on which the Committee, or the Service, have been able to come to no definite conclusion until his opinion has been received.

3. The points, including those of the above undetermined description to which I am directed more particularly to request attention, are as follow :—

Supposing the old rules to have remained in force, what additional Subscription would have been necessary to make up gradually the deficient Capital and provide for the liabilities annually accruing *under those rules*?

Is the general rate of 2½ per cent. now levied under the new rules on the whole body of Subscribers (including Annuitants who retire *after* the 1st January 1850) sufficient with the accumulated Capital to meet the present and further liabilities under the old rules?

Are the special rates of 2 per cent. from married men, and extra rates for children, sufficient to meet the *additional* objects contemplated by the new rules?

If any addition to the rate of contribution now fixed be necessary, how, and at what rate should the additional contribution be levied?

If any diminution of the contributions now fixed be practicable, how should it be effected?

With reference to the 21st to 26th paras. of the printed report of the Committee of the 30th March last, the concluding paragraph of the postscript to the same, and Article VIII. of the proposed rules, is it necessary to require retiring annuitants to make up on retirement the whole amount of their subscription during service to Rupees 25,000, in order to retain an interest in the Fund, or would the proposed rates levied on them during the period of their service, and subsequently on their annuities, be sufficient?

With reference to paragraph 20 of the Committee's report abovementioned and Article VII. of the proposed rules, what income would probably accrue to the Fund from the limitation of pension there specified, and is that limitation necessary as either a temporary or permanent source of income to the Fund.

If the additional income accruing from this source be necessary, might not married Subscribers be allowed to insure their families against the limitation, by the payment of a bonus or by additional subscriptions; and if so, how should the amount of bonus or rate of additional subscription be regulated?

In the present state of the finances of the Fund, and at the present rates of subscription, could the Fund afford to pay a donation of £300 to daughters on their marriage; and would such an arrangement be likely to prove profitable to the Fund by inducing marriages, or would it only entail a further charge on the Fund?

Would it not be proper to levy a bonus on marriage where the age of the husband considerably exceeds that of the wife, and if so, according to what scale ought the amount of bonus to be regulated, so as to indemnify the Fund for the additional risk arising from excessive inequality of age?

Is the rule which allows widows to retain half their pension on re-marriage likely to benefit the Fund, or otherwise?

Estimating the possible contingent advantages likely to be obtained from the Fund by married and unmarried Subscribers, are the present rates of subscription fairly allotted to the two classes?

4. The Actuary's attention should be drawn to paragraph 2 of the postscript to the Committee's Report of the 30th March 1850, and he should be requested to prepare new Tables of commutation in accordance with the opinion which

he may form on the points therein indicated. The Table of commutation for Sons will further have to be altered, with reference to the circumstance that the extra subscription for Sons may continue to the age of 21, instead of ceasing at 16, as is the case at Bombay.

5. The above are the questions which I am desired more prominently to notice for the consideration and report of the Actuary; but it is the desire of the Managers that he should report fully on the state and prospects of the Fund: pointing out any errors into which the Committee may have fallen, and suggesting such alterations as he may consider necessary.

6. In respect to Statement No. 5, which contains the names of the Annuitants who have already retired from the Service, having made up by their subscriptions to the Fund the amount of Rupees 25,000, so that their familes may have a claim to the benefits of the old rules, I am directed to explain that though there is the possible contingency of some of their families coming on the Fund, the number will be very few, as they are for the most part possessed of such means as would prevent their incumbency under the old rules. It is nevertheless necessary that the contingency should be kept in view.

7. In respect to the ages of Subscribers absent on furlough, I have already addressed you in my letter of the 7th May, and request the favor of your making over the duplicate statements received from them to the Actuary in the manner there indicated. There are, it will be observed, certain Subscribers from whom we have not been able as yet to procure returns for the Statements required for the Actuary: some of these, I hope to forward ere long; and in respect to those who continue to withhold the information, the presumed ages, which I have given in the Statement,

must, according to the rules for entering the Service, be within two or three years of what is correct.

8. The Managers will feel obliged by your informing them as soon as possible of the arrangement you may make with the Actuary, and about what time his report may be expected; and also that you will have the kindness to aid him, as far as lies in your power, in procuring any information which he may require not included in the Statements now furnished.

I am, Gentlemen,

Your most obedient Servant,

(Signed) J. S. TORRENS,

Hony. Secretary.

Bengal Civil Fund Office
The 2nd July, 1850.

The Schedule referred to in the first paragraph.

1. First and Second Report of the Committee appointed to prepare new rules, including proposed new rules and old rules (printed).

2. Third Report of ditto, being the revised new rules (printed).

3. Proceedings of Subscribers at General Meetings of 31st January 1849, 12th October 1849, and 31st January 1850, (printed).

4. Statement of Subscribers, the members of their families, and ages of the same.

5. Statement of present Annuitants and their families, with ages, who may eventually have claims on the Fund according to the old rules.

6. Statement of Incumbents on the Fund, widows and children, with ages, and the amount of pension they receive from the Fund under the old rules.

7. Statement of Subscribers with their present salaries, rates of subscription under new rules, &c.

8. Account of the Fund closed to 30th April 1849, and a memo. of the balance as estimated to amount on 30th April 1850.

9. Copy of Rules of Annuity Fund.

(NOTE.—The printed papers Nos. 1, 2 and 3, were forwarded by the Steamer Mail of 2nd June.)

To MESSRS. COUTTS AND CO.,
Agents, Bengal Civil Fund,
LONDON.

GENTLEMEN,

With reference to my letter to your address of the 2nd July last, I am directed by the Managers to forward the accompanying copy of correspondence with the Secretary of the Bombay Civil Fund for communication to Mr. Griffith Davies, whom you will be so good as to request when furnishing his report to supply separate Tables, corresponding with those which accompanied his letter to the Secretary of the Bombay Fund of the 26th December 1844, for fixing the respective values of Annuities to be transferred to the Appropriated Fund of this institution under rule 42 from the funds, bearing interest at 8 per cent. and those at 5; the latter being the rate which the Government have at present allowed on the additional subscriptions under the new rules.

Table E., given at page lxiii. of the printed report of the Committee of the 30th June 1849, serves for the requisite valuation as respects the funds bearing interest at 8 per cent. but the Managers desire to be furnished with

a corresponding Table for calculating values for the funds at 5 per cent., that is, those which are levied under the new rules.

The accounts and statements already furnished for the Actuary will show the assets which he may calculate to accrue from each of the above descriptions of contribution, and enable him to state the proportion which should be transferred for each Annuity from the funds bearing the different rates of interest.

(Signed) J. S. TORRENS,
Honorary Secretary.

Bengal Civil Fund Office,
The 14th January, 1851.

MR. DAVIES' REPORT ON THE FOREGOING CASE.

To the Secretary of the Bengal Civil Fund.

SIR,

Some time last summer, I received, through the hands of Messrs. Coutts and Co., the Agents of the Fund in London, the foregoing copy of your letter to them, dated at Bengal, on the 2nd of July 1850, with the several documents enumerated therein; and some time afterwards I received from them the returns of the ages of such of the Members retired to Europe, with the ages of their Wives and Children, as they had been able to procure. About the end of February last, I received also from them a copy of your second letter, dated on the 14th January 1851, and of the correspondence between yourself and the Secretary of the Bombay Civil Fund. I should also add that, in answer to enquiries and by way of memoranda, I received from the Agents all the assistance which they had in their power to afford.

2. As soon as I was able to commence the required investigation of the state of your Fund, I made a classification of the Incumbent Widows and Children according to their respective dates of birth, in the manner shown by Appendix I., by which it appears that on the 1st of January 1850, there were on the Fund 79 Widows, 91 Daughters, and 61 Sons. By a similar process I formed Appendix II. from your documents, containing a classification of the Children of the living Members according to the dates of their respective births. By this Appendix it will be found that the lists which you furnished, and the returns made from Members at home, contained a record of 448 Daughters and 466 Sons, including those born in 1850, making together no less than 914 Children of both sexes, entitled to the Reversionary Benefits of the Fund, in the event of their becoming fatherless within the ages prescribed by the Society's Regulations.

3. I then formed Appendix III. by classifying according to their respective dates of birth all the married Members, and Widows with offspring, which had their dates of births with the dates of their Wives' births supplied: and then from this Appendix I formed Appendices IV. and V., by the former of which it will be found that the average difference of age between the Husbands and Wives of 260 married Members therein contained, amounted to (6.97) very nearly 7 years, and by the latter it will also be found that the average difference of age between the Fathers and Children amounted to 34 years; and that the average number of Children to each Father amounted to about $3\frac{4}{7}$.

4. Appendix VI. contains the following classification of the Members, and therefore requires no other explanation than what is contained therein.

Members distinguished into active and retired Members.	Married Members			Bachelors.	Widowers.	Uncertain Description.	Total.
	Whose ages and Wives' ages are given.	Whose ages are unknown.	Total.				
Active Members,	233	15	248	216	30	5	499
Retired ditto, ...	27	0	27	8	9	11	55
	260	15	275	224	39	16	554

5. In Appendix VII. I abstracted from your statement the number of Widows, Daughters, and Sons, under each separate letter, with the amounts of their net and full Pensions, and added the results, from which it appears that the amount of the net Pensions payable to 79 Widows, 91 Daughters, and 61 Sons, comprised in the said statement, amounted to £30,191-5-11 per annum; and that the full Pensions, without any deduction for property, would amount to £40,430 per annum, and from these we infer that the net Pensions amounted very nearly to ¾ of the full Pensions. It is also stated in page 12 of the Committee's Report, dated in 1850, that the number of families who had come on the Fund during the previous 10 years was 39, and that the number of Subscribers who, during the same period, had died leaving families independent of the Fund, was 16. Hence comparing 39 with 39 + 16 = 55, and assuming the net Pension at ¾ of the full Pensions, it will be found that the claims under the late Regulations of the Fund amounted to about

$\frac{3}{4} \times \frac{39}{55} = \frac{117}{220} = \cdot 53$, or 53 per cent. of what they may be likely to amount to under the New Regulations.

6. From the statement which you furnished of the monthly subscriptions, computed on the allowances drawn by the Service for the month of March 1850, I found that the amounts are as under, viz.

	Rs. per Month.	Rs. per Annum.
2½ per cent. on allowances of 482 Members,	17032 14	4 or 204394 12
2 per cent. on ditto of 243 married ditto,	8739 15	9 or 104879 13
Subscriptions for Children, ...	3012 6	4 or 36148 12
To which must be added the Honorable Court's Donation,.....		25600 0
And the Deductions for Minima about.....		15700 0
Making the total estimated subscriptions about, ...	Rs.	386723 5

I should, however, remark that the list of Members which you furnished contained 499 Members exclusive of Annuitants, and 248 married Members exclusive of Annuitants, and those whose descriptions were uncertain, and this may possibly make the real income somewhat different from the above estimate.

7. After I had classified the facts supplied, in the manner described in the foregoing Articles (or Sections), and considered the various queries contained in your first letter, I found that I could not furnish you with satisfactory answers without forming a set of Tables which would be more applicable to your Fund than those adopted by the Committee as the groundwork of their calculations; because it is known that the mortality at Bengal is considerably lower than what obtains at Bombay, and, from the records of several of the Indian Funds which passed through my hands of late years, I am forced to conclude that the mortality among the Widows is also considerably lower than that expressed by the Table on which the Pensions to the Widows of the Bombay Civil Fund are valued. Added to this, I should further

remark that your Pensions are made payable by Half-yearly Instalments *in advance*, whereas those of the Bombay Fund are payable Half-yearly *in arrears*, and continued up to the day of death; and this circumstance must necessarily make the Tables, which would be suitable for the one Fund, inapplicable to the other, without modification.

8. Not having the means supplied to form the requisite Mortality Tables from the records of your own Fund, I examined the various Reports which I made for other Indian Funds, and found that, in 1842, I formed for the Bengal Uncovenanted Service Family Pension Fund a Table of Mortality among the Bengal Civil Service, from the list of Messrs. Dodwell and Miles, and that such Table gave the mortality under the age of 40 somewhat lower than that expressed by the Northampton Table, and higher after that age. But on examination of the Table formed by Mr. Neison for the Bengal Military Fund, and considering that soon after the age of 40 the Members of your Fund begin to return to this country, I determined to adopt the Northampton Table from 40 upwards to represent the Rate of Mortality which may be likely to obtain among your Members, and to continue it from 40 downwards from the said Table of the Uncovenanted Service Fund, by the following process. Thus let a represent the number living at any given age, and $\acute{a}$ the number living at the next older age, then will $\frac{\acute{a}}{a}$ = the probability that a person of the given age will survive one year, which probability we shall designate by p, so that $p = \frac{\acute{a}}{a}$ or $a = \frac{\acute{a}}{p}$ and $\log a = \log \acute{a} - \log p$. Then by taking at each age under 40, $\frac{1}{100}$ part of the mortality per cent. given at that age in the Uncovenanted Service Table, I obtained the probability

of a person *dying* between that age and the next greater, and by deducting that probability from unity, the remainder gave me the value of p at that age. Then taking from the Northampton Table the number living at 40, for $\acute{a}$, and the value of p at 39, found in the manner now explained, I obtained a, the number living at 39, by the above Formula, $\log a = \log \acute{a} - \log p$; and by repeating the like process from age to age between 40 and 20, I found the numbers living that are entered in the first column of Table I.

9. Having determined the number living at each age in the manner now explained, the Decrements were obtained by deducting from the number living at each age, the number living at the next higher age. Then by dividing 100 times the Decrement at each age by the number living at that age, I obtained the numbers entered in the column headed Mortality per cent. By subtracting one-half the Decrement at each age from the number living at that age, I obtained the number entered opposite the same age in the column headed "No. living in the middle of next year." On the supposition that the deaths in each year take place in equal portions during equal intervals throughout the year, it is manifest that the number living at the middle of any year must show the quantity of existence enjoyed during that year by the whole number which enter upon it, because those who survive must live one year each, and those that die within it must on an average live half a year each, or a whole year each for half their number, or in symbols $\acute{a} + \frac{a-\acute{a}}{2} = \frac{2\acute{a}+a-\acute{a}}{2} = \frac{a+\acute{a}}{2}$ or $a - \frac{a-\acute{a}}{2} = \frac{2a-a+\acute{a}}{2} = \frac{a+\acute{a}}{2}$.

10. The number living in the middle of the year, or the arithmetical mean between the number of those who enter upon it and the number of those who survive to the end of it, is sometimes technically called the number which *pass*

through the year, inasmuch as each of them on an average must live a whole year, between the beginning and the end of that year. As a mere corollary from what has now been stated, it follows that the whole quantity of existence which may be enjoyed by the number living at any given age, from that age to the end of their respective lives, must be equal to the sum of the numbers living opposite that age and all higher ages in the column headed "No. living in the middle of next year," which sum is set opposite the given age in the next succeeding column. And hence it also follows that if we divide that sum by the number living at the given age, the quotient must represent the average quantity of existence which each of them may be expected to enjoy thereafter, which average is therefore usually termed the *expectation of life*, and is found entered in the last column of the said table.

11. From the column headed "Mortality per cent." we may easily determine the number of Members of any given age which may be expected to die during the year next succeeding that age. Thus supposing the Society to contain 30 Members of the age of 60, we have only to find the probability of death at 60, by dividing the mortality per cent. by 100, by which we obtain ·040235 for such probability, and this being multiplied by 30, the supposed number of Members aged 60, and the product $30 \times \cdot 040235 = 1 \cdot 207 =$ the required number of expected deaths. Or if we put m for the number living at any given age, and p the probability of death at that age, then will the product mp represent the number of expected deaths among Members of that age during the next ensuing year. And if m represent the number of married Members of any given age, w the number of their wives, and c the number of their children, it is manifest that w must be equal to m, and consequently $mp = wp$ = the number of wives which may be expected to become

widows; and if we multiply the expression mp by $\frac{c}{m}$ the average number of children for each Member, we have $mp\,\frac{c}{m} = pc$ for the number of children expected to become fatherless during the year. By these formulæ I constructed Appendix VIII. in which will be found an estimate of the number of females that were expected to become widows in the year 1850, and the number of children expected to become fatherless.

12. I should, however, remark that the results obtained by the process explained in the last Art. would not be mathematically correct, as it is manifest that a Member who may be living with his wife or child at the beginning of the year may die within that year without leaving his wife or child him surviving, inasmuch as both the Member and his wife or child may die during the year, and his wife or child may have died before him. The probability of such an occurrence is, however, so small, that it may be disregarded, and the error may be in part, if not wholly, counterbalanced, by taking the probability of the Member's death at his age last birth-day in the manner shown by Appendix VIII.

13. I did not, however, form Appendix VIII. so much with a view of forming an accurate estimate of the number of females expected to become widows in 1850, or of the number of children expected to become fatherless, as I did by way of specimen of the manner in which such estimates may be made; for I do consider it important that the Managers of your fund should be acquainted with every practical test by which the progress of the Institution should be watched: for I can hardly suppose that in times past they would have allowed the liabilities of the Fund so far to exceed its accumulated capital, as in the opinion of the Committee it appears to have done, if they had then been possessed of

proper tables and means of proportioning the income to the liabilities. In order, however, to make a correct estimate, after the manner shown in Appendix VIII., the real number of wives and children living at the time when the estimate is made ought to be known, nor should any children born after the date of the estimate be introduced, nor any wives or children who would not be entitled to the benefit of the Fund on a Member's death be included. In Appendix VIII. the children born in 1850, and the wives and children of all the Retired Annuitants, are included, as taken from Appendices IV. and V. when I had no intention of forming Appendix VIII. From the mortality per cent. exhibited by Table III. and the marriages per cent. shown in Table IV. the numbers of expected deaths and re-marriages among the widows may be annually computed, and then, by comparing the results with the actual deaths and re-marriages, you will have the means of testing the accuracy or inaccuracy of the said tables.

14. Having explained the construction of Table I., I have only to remark that Table II. is the same as that which I supplied some years back to the Madras Military Fund, excepting that I found reasons slightly to increase the mortality from 13 to 25. I do not know of a more accurate Index of the mortality among the wives of Members of the Indian Funds; and for the want of knowing a better, I observe that Mr. Neison adopted it, in his Report on the Bengal Military Fund. The form of Table II. is the same as that of Table I. the different columns of which have been fully explained in the foregoing Articles.

15. Tables III. and IV. are also the same as those which I recently formed for the Bombay Military Fund, the constructions of which are fully explained in my late Report on that Fund; and I have little doubt that if you will put yourself in communication with the Secretary, he will furnish

you with a copy of it. From all the documents which have passed through my hands, in reference to the Indian Funds, I have reason to believe that those Tables will be found to exhibit a near approximation to the rate of mortality and marriage which may be expected to occur among the widows and daughters who are interested in the Indian Funds.

16. If in any Table of mortality we put a or b to represent the number living at any given age, and ${}^{t}a$ or ${}^{t}b$ for the number living in the same Table at an age t years older than the given age, then will $\frac{{}^{t}a}{a}$ or $\frac{{}^{t}b}{b}$ represent the probability that a person of the given age (and subject to the rate of mortality expressed by such Table) will survive the term of t years. And if $\frac{{}^{t}a}{a}$ represent the probability that a nominated life A shall survive t years, and $\frac{{}^{t}b}{b}$ the probability that another life B shall survive the like term, then (by what has been proved by writers on the doctrine of chances) will the product of these two probabilities $\frac{{}^{t}a}{a} \cdot \frac{{}^{t}b}{b} = \frac{{}^{t}a\ {}^{t}b}{a\ b}$ which may be otherwise written $\frac{{}^{t}(ab)}{ab}$ represent the probability that both A and B will survive the term t years. And I might further remark that the probability that any two or more independent events will all happen, is equal to the continual product of the several probabilities of their happening separately.

17. If v be put to represent the present value of £1 due one year hence, at any given rate of interest, then it follows, by the very nature of compound interest, that v^{t} will represent the present value of the like sum to be received at the end of t years, and $v^{t+\frac{1}{2}} = v^{t}\, v^{\frac{1}{2}}$ will represent the present value of £1 to be received at the end $t + \frac{1}{2}$ years. If, how-

over, the money be not receivable at the end of the given term, unless a certain event shall happen, its present value will be diminished in the ratio of certainty, denoted by unity, to the probability that such event will take place, and must therefore be equal to the product arising by multiplying the present value of the given sum, if its receipt were certain, by the probability of the event happening on which its receipt is contingent. Thus the present value of £1 to be received at the end of t years provided that an assigned life A shall survive that term $= v^t . \frac{^t a}{a} = \frac{^t a . v^t}{a}$ and that of a like sum to be received at the end of the like term, provided that two nominated lives A. and B. shall both survive that term $= v^t . \frac{^t(ab)}{ab} = \frac{^t(ab)\ v^t}{ab.}$

18. As it is manifest that £1 Annuity dependent on any given life is made up of £1 to be received at the end of one year, provided the assigned life shall survive 1 year, another £1 to be received at the end of 2 years, provided the assigned life shall survive that term, and so on to the end of life, it follows, that if in the expression $\frac{^t a\ v^t}{a}$ we make t successively $= 1, 2, 3,$ &c. years, and add the result, their sum $\frac{^1a\ v + {}^2a\ v^2 + {}^3a\ v^3 \text{ &c.},}{a}$ must denote the present value of £1 Annuity on the assigned life, which value we shall designate by the Roman letter A; and it is equally manifest that if in the expression $\frac{^t(ab)\ v^t}{ab}$ obtained in the last Art. we take t successively $= 1, 2, 3$ &c. years, and add the results, their sum $\frac{^1(ab)\ v + {}^2(ab)\ v^2 + {}^3(ab)\ v^3 \text{ &c.}}{ab}$ must denote the present value of £1 Annuity dependent on the joint existence of two lives A and B, which value we shall designate by A B.

19. If we multiply the number living at each age in any Table of Mortality by the present value of £1 due as many years hence as are equal to that age, and enter the products opposite the corresponding ages in a column headed with the letter D, as in Table V., then will the fraction $\frac{{}^{t}D}{D}$ represent the present value of £1 to be received at the end of t years, provided an assigned life (subject to the rate of Mortality expressed by such Table) shall survive that term. In order to prove this I need only remark that, if n be put for the given age, then it follows from the formation of column D that $D = av^{n}$ and ${}^{t}D = {}^{t}a\ v^{n+t}$ and consequently $\frac{{}^{t}D}{D} = \frac{{}^{t}a\ v^{n+t}}{av^{n}} = \frac{{}^{t}a\ v^{t}}{a}$ which was shown in Art. 17 to be the present value of £1 to be received at the end of t years, provided that the assigned life A shall survive that time.

20. If after having computed the numbers entered in column D at all ages, we begin at the oldest age in the Table, and take the successive sums of the numbers in column D, and enter such sums in an adjoining column headed with the letter N, so that the number in column N at each age shall be the sum of the numbers in column D at all higher ages,—then will the quotient resulting by dividing the number in column N opposite any given age by the number in column D at the same age be the present value of £1 Annuity on a life of that age, or in symbols $A = \frac{N}{D}$. In order to prove this, I need only remark that by the construction of column N we have $\frac{N}{D} = \frac{{}^{1}D + {}^{2}D + {}^{3}D, \text{ \&c.,}}{D}$ which by the construction of column D becomes $= \frac{{}^{1}a\ v^{n+1} + {}^{2}a\ v^{n+2} + {}^{3}a\ v^{n+3} \text{ \&c.,}}{av^{n}} = \frac{{}^{1}a\ v + {}^{2}a\ v^{2} + {}^{3}a\ v^{3} \text{ \&c.,}}{a}$

which was shown in Art. 18 to be the present value of £1 Annuity on A's life = A, and consequently $A = \frac{N.}{D}$

21. If we multiply the number living at each age in any Table of Mortality by the present value of £1 due as many years hence as are equal to that age, and then multiply the several results by the number living in the same or any other Table of Mortality, observing to preserve the same difference between the ages involved in all the operations throughout, and enter these second products in a column headed with the letter D of a joint life Table, and begin at the oldest ages and take the successive sums of the numbers in column D, and enter such sums in an adjoining column headed with the letter N, so that at each age the number in column N shall be the sum of the numbers in column D at all higher ages, then will the fraction $\frac{N}{D}$ represent the present value of £1 Annuity on the joint continuance of two lives A and B; or in symbols $AB = \frac{N.}{D}$ In order to prove this we may observe that, by the formation of the columns N and D, we have $\frac{N}{D} = \frac{{}^1D + {}^2D + {}^3D + \&c.,}{D} = \frac{{}^1(ab)\ v^{n+1} + {}^2(ab)\ v^{n+2} + {}^3(ab)\ v^{n+3}\ \&c.}{(ab)\ v^n} = {}^1(ab)\ v + {}^2(ab)\ v + {}^3(ab)\ v^3\ \&c.$ which had been shown in Art. 18 to be the present value of £1 Annuity on the joint lives of A and B; and consequently $A\ B = \frac{N.}{D}$

22. I would here remark that the columns D, N and A of Tables V. and VI. were formed in the manner explained in Articles 19 and 20 from Tables III. and IV. at 8 per cent. and Tables IX. and X. from the same Rates of Mortality at 5 per cent. And that the columns D N

and A B of Tables XVI. and XVII. were also formed from Tables I. and II. by the method explained in Art. 21, the former at 8 per cent. and the latter at 5 per cent.

23. I ought, however, to remark that the value of an Annuity obtained by the Formula $A = \frac{N}{D}$ is that of an annuity payable yearly, and to cease with the last payment which may become due in the life-time of the Annuitant; but in your Fund, as well as in most of the other Indian Funds, the annuities granted to the Widows and Children are made payable by Half-yearly Instalments, by which means the Annuitant is benefitted in each year during life, to the extent of Half a Year's Interest on the first Half-yearly Instalment, which is equivalent to a whole Year's Interest on a quarter of a Year's Annuity: and, in addition to this, it is manifest that in the year in which an Annuitant may die, he (or she) must have an equal chance of living to receive the first Half-yearly Instalment, or of dying before such Instalment shall become due, and that chance is therefore equivalent to one quarter's Annuity, to be received at the Annuitant's death. It therefore follows that the Annual Interest on one quarter's Annuity, by which the Annuitant is benefitted during life, with the chance of receiving an additional Instalment which is equivalent to a principal of one quarter's Annuity to be received on death, must be together equivalent to one quarter of a Year's Annuity in present money. From what has been now stated it is manifest that if A represent the present value of £1 Annuity payable yearly, $A + \frac{1}{4}$ must represent the present Value of a like Annuity payable by Half-yearly Instalments *in arrear;* and if the Half-yearly Instalments are made payable *in advance,* as I understand they are by your Fund, the value of the Annuity must thereby be further enhanced by the Half-yearly Instalment advanced at the beginning of the year; and the present value of £1 Annuity so

payable will be found entered in the last column of Tables V., VI., IX. and X.

24. It will, however, be found in practice that the age of the Annuitant, at any given date, generally falls between one birth-day and another, and on this account I took the mean between the value of £1 Annuity at each birth-day, as shown by the forementioned Tables, and that at the next succeeding birth-day, and entered the results in the first and second columns of Table VII. and XI. in each of which the first column shows the value of £1 to cease on death, and the second column shows the value of a similar Annuity to cease on death or re-marriage. It is therefore manifest that by adding the numbers at each age in the two columns, their sum would show the value of an Annuity of £2 up to the date of re-marriage, and of £1 Annuity from that date to the Annuitant's death, and by taking half of that sum I obtained the number entered at each in the third column, which shows the value of £1 Annuity by Half-yearly Instalments in advance, and to be reduced to one-half on re-marriage: but without any provision for the resumption of the suspended half in case of subsequent Widowhood.

25. In order to explain the construction of Table VIII. let a represent the number living and unmarried at any given age n in Table IV., and ${}^{t}m$ the number expected to go off by marriage during the $(t + 1)$th year after that age, as shown by the number entered in column 11th of the same Table opposite an age t years older than the given age. Then by assuming that these ${}^{t}m$ marriages will occur at equal intervals throughout the $(t + 1)$th year, we may consider that on an average they will take place at the end of $t + \frac{1}{2}$ years after the given age, and the value at the given age of £1 to be paid on each of them will therefore be represented by ${}^{t}m\, v^{t + \frac{1}{2}} = {}^{t}m\ v^{t}\ v^{\frac{1}{2}}$, and this product being divided by a,

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gives $\frac{{}^{t}m\, v^{t}\, v^{\frac{1}{2}}}{a}$, or its equivalent fraction $\frac{{}^{t}m\, v^{n+t}\, v^{\frac{1}{2}}}{a\, v^{n}}$, must represent the value at the given age of £1 to be paid on the marriage of any one of the a Females that are living at the given age, provided such marriage shall take place during the $(t + 1)$th year after that age: and if in this expression we make t successively $= 0.\ 1.\ 2.\ 3.$ &c., to the greatest age that the probability of marriage extends, and add the results, we have $\frac{{}^{0}m\, v^{n}\, v^{\frac{1}{2}} + {}^{1}m\, v^{n+1} v^{\frac{1}{2}} + {}^{2}m\, v^{n+2} v^{\frac{1}{2}} \text{ &c.}}{a v^{n}} =$ the present value of £1 to be received on marriage, in whatever year that marriage may happen to take place. In this Formula it is manifest from what was stated in Art. 19, that the Denominator av^{n} is identical with the number in column D at the given age, in Table VI., and if we multiply the number of marriages at each age, as taken from column 4th of Table IV., by the present value of £1 to be received as many years hence as are equal to that age, and multiply each of such products by $v^{\frac{1}{2}}$, the present value of £1 to be received at the end of six months, the latter products will represent the values of the several terms in the numerator of the foregoing Formula. Then by entering these values in column P of Table VIII., beginning at the oldest age and taking the successive sums of the numbers in column P, and entering such sums in an adjoining column K, so that the sum entered at each age in column K, shall be equal to the sum of those in column P *at* the given age and at all higher ages, we shall have $\frac{K}{D} = \frac{P + {}^{1}P + {}^{2}P + {}^{3}P \text{ &c.}}{D}$ for the required value at the given age of £1 to be received on marriage, which value for each age is found entered in the last column of Table VIII.

26. From the expression $\frac{{}^{t}D}{D}$ obtained in Art. 19, for the present value of £1 to be received at the end of t years,

provided that an assigned life shall survive that term, it is manifest that $\frac{{}^{t}D.{}^{t}A}{D}$ must represent the value of £1 Annuity to commence at the end of t years, and that this expression is equally applicable whether the Annuity be payable yearly or half-yearly, *in arrear or in advance*, provided that the value of the factor ${}^{t}A$ be taken accordingly. And by the Formula $\frac{{}^{t}D.{}^{t}A}{D}$ I computed from Table V., the second, third, fourth and sixth columns of the upper division of Table XII. The first column of it was formed by taking at each age from birth to 21,30 times the value of £1 Annuity as taken from the last column of Table V. The fifth column shows the sum at each age of the numbers entered at the same age in the four preceding columns, and by deducting from the said sum the number entered in the sixth column, I obtained the difference entered at the same age in the last column, which difference therefore shows, for each age, the present value of a Son's Pension payable by Half-yearly Instalments in advance, at the rate of £30 per annum till the age of 5 years, £60 per annum from 5 to 8, £80 per annum from 8 to 11, and £100 per annum from 11 till 21.

27. The first four columns of the lower division of Table XII. were formed from Table VI. exactly in the same manner as the corresponding columns of the upper division were formed from Table V., and the fifth column was computed by multiplying at each age by 300 the value of £1 to be received on marriage, as taken from the last column of Table VIII., and the last column up to the age of 20 is made up of the sum of the numbers in all the preceding columns, and shows the value at each age up to 20 of the benefits held out to Fatherless Daughters, including a portion of £300 on marriage, with a pension payable Half-yearly in advance at the rate £30 per annum under the age of 5 years, £60 per annum from 5 to 8, £80 per annum from 8 to 11, and £100

per annum from 11 till death or marriage. After the age of 20 I found the most ready method to add at each age 300 times the value of £1 to be received on marriage taken from Table VIII. to 100 times the value of £1 Annuity taken from the last column of Table VI.

28. The numbers entered at each age in Table XIII. were obtained by taking the mean between the value given by Table XII. at the age last birth-day, and that given by the same Table at the age next birth-day. I would, however, remark, that the provision contained at the end of the XXXII. Article of the Fund's Regulations for advancing to a son at any age between 16 and 21, the whole amount of Annuity that would become payable to him if he lived to the age of 21, must of necessity make the practical value of a son's pension at all ages somewhat greater than that shown by Table XIII.; but I would observe that the disparity between the monthly allowances granted to children residing in India, and the Half-yearly pensions payable to those who reside in Europe, must in some measure counterbalance the excess of liability created by the anticipation of payments made to sons as hereinbefore noticed.

29. In order to explain the formation of Table XIV., I would remark, that the probability that a son will become fatherless during the $(t + 1)$th year from his present age, depends upon the two following events, viz., first that the father will die during the year, of which the probability is represented by $\frac{{}^t d}{a}$, a being the number living at the father's age in Table I. and ${}^t d$ the Decrement in the same Table opposite an age t years older than the father's age; secondly, that the son will pass through the $(t + 1)$th year in the sense explained in Art. 10, of which the probability may be denoted by $\frac{{}^t s}{b}$, the b being taken for the number living at the son's age in Table III. and ${}^t s$ for the number living in the *4th*

column of the same Table opposite an age t years older than the son's age: and it therefore follows, from what was stated in Art. 16, that the probability of the son becoming fatherless during the $(t + 1)$th year from his present age will be denoted by $\frac{{}^{t}d}{a} \times \frac{{}^{t}s}{b} = \frac{{}^{t}(d \cdot s)}{ab}$. And if the son do become fatherless during the $(t + 1)$th year, we may reckon on an average that he will become so at the middle of the $(t + 1)$th year, when the value of his pension taken from Table XIII. may be represented by ${}^{t}p$, and its present value, when discounted for $t + \frac{1}{2}$ years, is therefore represented by ${}^{t}p\, v^{t} \cdot v^{\frac{1}{2}}$, and this being multiplied by the foregoing probability, gives for the present value of the son's Reversionary Pension in the event of his becoming fatherless during the $(t + 1)$th year from his present age $= \frac{{}^{t}(ds)\ {}^{t}p\ v^{t} \cdot v^{\frac{1}{2}}}{ab} = \frac{{}^{t}(dsp) \cdot v^{t} \cdot v^{\frac{1}{2}}}{ab}$, or by multiplying the numerator and denominator by v^{n}, such present value will be denoted by the equivalent fraction $\frac{{}^{t}(dsp) \cdot v^{n+t} v^{\frac{1}{2}}}{abv^{n}}$. And if in this expression we take the value of t successively $= 0, 1, 2, 3$, &c., to as many years as are equal to the difference between the son's age and 21 years, and add the results, we have

$$\frac{{}^{0}(dsp)\, v^{n} \cdot v^{\frac{1}{2}} + {}^{1}(dsp)\, v^{n+1} v^{\frac{1}{2}} + {}^{2}(dsp)\, v^{n+2} v^{\frac{1}{2}}}{abv.^{n}}$$

for the total value of the son's Reversionary Pension contingent on his becoming fatherless at any time under the age of 21 years; such Pensions to be payable by Half-yearly Instalments in advance.

30. Before I come to explain the manner in which Table XIV. was formed by the assistance of the Formula deduced in the last Art., I would remark that by Appendix V. it is shown that the average difference of age between the fathers and children embraced therein amounted to 34 years: but, inasmuch as a considerable proportion of those fathers may

be expected to have more children, and the difference between the ages of the fathers and children must necessarily increase by the births of future children, I have assumed that, on the long run, the average age of the fathers will exceed that of the children by 35 years. This being taken as a basis, I computed the numbers in column D which represent the value of the Denominator $ab\ v^n$ by the Formula Log D = Log a + Log b + Log v^n, the value of a having been taken from Table I. opposite the several ages of 35, 36, 37, &c., to 55, the value of b from Table III. opposite the corresponding ages of the son, say 0, 1, 2, &c., to 20 and Log v^n or n Log v at 8 per cent. by making n = 35, 36, 37 &c., to 55. The numbers entered in column P, which represent the values of the several terms in the numerator of the Formula obtained in the last Art., were also computed by the Logarithmic Formula Log P = Log d + Log s + Log p + Log v^n + Log $v^{\frac{1}{2}}$, by taking the value of d from Table I. at the several ages of 35, 36, 37 &c., to 55, the value of s from the 4th column of Table III. at the corresponding ages of the son from 0, 1, 2 &c., to 20, the value of p from the son's Division of Table XIII. opposite the several ages 0 to 1, 1 to 2, 2 to 3, &c., to 20 to 21. And Log v^n the same as in the formation of column D, to which was added for each age the constant Log $v^{\frac{1}{2}}$, taken as Log $_{1.04}\frac{1}{}$ and not = Log $\sqrt{\ }_{1.08}\frac{1}{}$.

31. Having determined the numbers for all ages found entered in column P, those in column K were obtained by beginning at the oldest age, and taking the successive sums of those in column P, so that the number entered at each age in column K is the sum of those in column P at that age and at all higher ages. After having thus completed the columns D, P and K, the numbers in the 4th column were obtained by dividing the number at each age in column K by the number at the same age in column D; and the

numbers in the last column of Table XIV. were obtained by taking the means between the numbers found opposite the last and next birth-days in column 4th, and represent the values at 8 per cent. of the Reversionary Pensions to the sons of the living Members. I ought here to remark, that the numbers in columns D and P were taken in each case as one-tenth of what the products amounted to; for in the fraction $\frac{K}{D}$ or $\frac{N}{D}$ it is manifest that it is immaterial whether we take the whole or any given proportion of the K and D or N and D, provided that the same proportion of each be taken.

32. The formation of Table XV. is exactly similar to that of Table XIV. by merely substituting for the values of b and s the numbers living in the 1st and 4th columns of Table IV. instead of the numbers living in the 1st and 4th columns of Table III., and for p the value of a daughter's benefits from Table XIII. instead of the value of a son's Pension taken from the same Table.

33. The Formulæ obtained in Art. 29 were also applied to the construction of Table XVI. by merely substituting 7 instead of 35 years for the difference of age, and taking the values of b and s from the 1st and 4th columns of Table II. and that of p from the 3rd column of Table VII. instead of those from the 1st and 4th columns of Table III., and of the Son's Pension from Table XIII. The XVII. Table was also formed the same as Table XVI. excepting that the Log v^n and Log $v^{\frac{1}{2}}$ were taken at 5 per cent. in the formation of Table XVII., and the value of p taken from the 3rd column of Table XI. instead of the corresponding column of Table VII.

34. Having shown in Art. 23, that an addition of $\frac{1}{4}$ must be made to the value of £1, payable yearly, in order to represent the value of a similar Annuity payable by Half-yearly

Instalments, it may also be shown that the value of an Annuity of £1 payable yearly must be increased by the Fraction $\frac{m-1}{2m}$ when such Annuity is made payable by m equal Instalments in each year. Thus if an Annuity is payable monthly, $m = 12$ and the fractional Increment $\frac{m-1}{2m}$ then becomes $= \frac{12-1}{2\times 12} = \frac{11}{24} = \cdot 458$. By adding this Increment to the value of the Annuity denoted by A B at each age in Tables XVI. and XVII., and then taking the means between the value of A B + ·458 at each age, and that of the same expression at the next higher age, I obtained the values of the future Subscriptions, which are found entered in Tables XVIII. and XIX. I also computed the values of the Wives' Reversionary Pensions, which are found entered in the same Tables, by simply taking the means between the values given at every two consecutive ages in Tables XVI. and XVII.

35. It will be observed that I confined my calculation of the joint Life Tables to one difference of age between the Husbands and Wives, leaving the task of computing more extensive Tables to some scientific Member of the Fund, (if such be deemed requisite,) after the example of the indefatigable Mr. W. R. Morris, the late Secretary of the Bombay Civil Fund. I trust, however, that the Tables now sent will be found a complete Ready Reckoner for making an approximated valuation of the Liabilities of your Fund at any given date, and that the explanation which I have given of their construction will prove satisfactory, not only as a description of what I have now done, but also as a guide for the formation of more extensive Tables, whenever such Tables may be thought necessary.

36. I shall next proceed to show the application of the annexed Tables to the estimation of the Liabilities of the

Fund, on the 1st of January 1850, beginning with the Pensions of the Widows that were then living, which will be found classified in Appendix IX., and the values of their Pensions estimated at 8 per cent. by the assistance of the 2nd and 3rd columns of Table VII. By this Appendix it will be seen that the estimated values of the full Pension if made payable till death or marriage is,.. £212,505·3
and if one Half be continued till death,.. £221,769·6

making a difference of..... £9,264·3
supposing the continuation of the Half Pension during re-marriage to have no effect in accelerating re-marriage. On moral grounds, I am certainly a strong advocate for continuing to re-married Females some portion of the Pensions allowed to them during Widowhood; and it was at a suggestion which I made to the Bombay Military Fund in 1830, that the Managers of that Fund determined to allow Half their Pensions to re-married Widows, and their practice was subsequently adopted by some of the other Indian Funds; but I am not able to state whether the effect of such practice in accelerating re-marriage, will be likely to counterbalance the computed increase of Liability thereby produced.

37. I would next refer to Appendix X., by which it will be found, that at 8 per cent. the computed value of the Pensions that were payable to Sons, on the 1st of January 1850, as computed by Table XIII. amounted to £32,181·5, and the then value of the Daughter's Benefits, including a marriage portion of £300 to each, estimated by the same Table, and at the like rate of Interest, amounted to £81,097·8, and by Appendix XI. it will also be found that the computed value of the marriage portions only, to the fatherless Daughters who were living on the 1st of January 1850, amounted to £8,100·1, which sum being deducted from the estimated value of the Daughter's Benefits given in

Appendix X. leaves £72,997·7 for the estimated values of their Pensions only. On this subject, I do really think, that a respectably educated Female, who is entitled to a portion of £300 on her marriage, is so much more desirable for a young man to meet with, than a similarly educated person, who has no portion to expect on her marriage, that the Fund would run but a small risk in having its Liabilities materially increased by allowing the proposed marriage portions to the existing Daughters.

38. By collecting the various items of Liabilities obtained in the last two articles, it appears that the *minimum* amount of those Liabilities for the full Pensions on the 1st of January 1850, was for Widows.... £212,505·3
„ „ for Sons ..... £32,181·5
„ „ for Daughters.. £72,997·7

Making together..... £317,684·5
From which deducting, for other Property, say. £79,921·1

There remains..... £237,763·4
Or in Rupees at 1*s.* 11*d*..... Rs. 24,81,009·0
Estimated Assets on the 1st January 1850, taken as proportionate amount between the reported amount of 18,16,601 on 30th April 1849, and 18,97,805 on 30th April 1850, ... Rs. 18,70,737·0
Estimated Deficit,.... Rs. 6,10,272·0

From the estimate now made, which is the very lowest that I can place any reliance upon, it appears that if the whole of the accumulated Capital of the Fund on the 1st of January 1850, had been sacredly set aside for payment of the Pensions of the Widows and Children then chargeable on the Fund, without any provision for the expenses of management, such Widows and Children could not have been

secured more than about 75 per cent. of the Pensions held out to them by the late Regulations of the Fund; and it certainly is more generous than just to impose upon the present and future Members a contribution to make up for deficiencies in the contributions of deceased Members, in addition to what the present Members have already contributed to form the present Capital of the Fund, and what they must hereafter contribute to provide for their own families; but inasmuch as it appears that the Service have already determined to provide for the due payment of the Pensions of the Incumbent Widows and Children at the rates held out to them by the Regulations under which they were admitted Pensioners on the Fund, it is neither my province nor disposition to suggest that their Pensions should be reduced.

39. I would next call your attention to Appendix XII. in which you will find that on the 1st January 1850, the estimated value of the Reversionary Pensions to the Sons of the then living Members amounted to £39,509·4 and that of the Daughters' Benefits, £85,956·4

making together £125,465·8: and this exclusive of any provision which may be required for Children born after the 1st of January 1850, to the Members then living, which provision cannot, in my opinion, amount to less than one-fourth of the computed value of the Reversionary Benefits held out to the Children born before the 1st of January 1850. I find, however, on reference to the 7th point mentioned in your first letter, that your Managers consider that few of the families of the Retired Annuitants would be entitled to the Benefits of the Fund under the old Rules of the Society. Being, therefore, desirous that my estimates should in no case over-estimate the liabilities of the Fund, I formed Appendix XV. showing

the amount of liabilities on account of the children of the Retired Annuitants, that are included in Appendix XII. in order that they may be deducted therefrom. Taking this view of the subject, we have the computed value on the 1st of January 1850, exclusive of Annuitants' children, as under, viz.

The estimated value as hereinbefore given,	£125,465·8
From which deducting the Annuitants' Children, ...	£18,637·5
There remains, ...	£106,828·3
To which adding one-fourth for future Children, ...	£26,707·1
And we have a minimum estimate of, ..	£133,535·4

40. Referring next to Appendix XIII. it will be found that, including the wives of the Retired Annuitants, the estimated value at 8 per cent. on the 1st of January 1850 of the Reversionary Pensions to the existing wives of the 263 married Members therein embraced, amounted to £169,354·2

From which deducting the values of the Pensions to the Annuitants' wives for the reason stated in last Art. ..	£21,076·2
There remains for the values of the R. P. of the wives of (263 — 27 =) 236 married Members, ...	£148,278·0
Proportionate value to 12 wives, whose ages were not given, ...	£7,539·6
Making together, ...	£155,817·6
To which adding the Children's Benefits from Art. 39, ...	£133,535·4
we have a Total of, ...	£289,353·0
or in Rupees at 1s. 11d. each, ... Rs.	30,19,336·0

for the total estimated value of the Benefits held out to the wives and families of the married Members that were living on the 1st of January 1850, without any provision for widows of the then Retired Annuitants, or for subsequently taken wives of the then living Members, whether single or married.

41. Having completed my estimate of the liabilities of the Fund, both for incumbent and contingent Pensions, the next point remaining to be considered is the means proposed to provide the requisite Assets to meet these liabilities. Were we to consider the monthly subscriptions of each Member individually, it is manifest that such subscriptions must gradually increase with his increasing emoluments; but taking into account the fraternal character of the Fund, and allowing the larger subscriptions of the older Members to make up what those of the younger Members fall short of the average, we may expect that, so long as the number of Members in the Service shall remain constant, the annual income of the Fund must also remain without any other increase than the gradual accumulations of the contributions of the Retired Members; and on that account it appears to me that the proper way to estimate the value of the future subscriptions will be, to value the contributions that are charged to make up the deficiency of the present capital as a constant Annuity on the whole duration of the lives of all the Members, whether married, single, or widowers; and that which is charged for the purpose of providing Reversionary Pensions to the wives and children of the present Members as payable during the joint lives of the married Members and their present wives, thereby leaving the contributions which may be made by the married Members after the deaths of their present wives towards providing for subsequent families.

42. In order to determine what per centage on the salaries of the Service may be required to make up the deficiency

in the present capital, I formed Appendix XVI. from the list which you furnished of the monthly subscriptions paid by the different Members, taking the values of the Annuities from the *Northampton Table* at 8 per cent., according to the ages attained by the different Members in the year 1849, because the rate of mortality exhibited by Table I. even under the age of 40, is so near to that expressed by the Northampton Table, that I did not think it necessary to form an Annuity Table for that purpose. From this Appendix it will be found that, after taking the Annuity on the whole duration of each Member on the 1st January 1850, according to his then age last birth-day, and adding the fraction ·458 for monthly payments, the average value of £1 Annuity on each life did not exceed 9·734; then dividing by this average value the amount of deficit exhibited by Art. 38, we have $\frac{610,272}{9{\cdot}734}$ = Rs. 62·695 for the Annual Subscription requisite to liquidate that deficit within the lifetime of the present Members; for I do not consider that the present Members, if they are willing to tax themselves with contributions to make up the deficiencies of deceased Members, have any right to entail that tax on future generations. By comparing the above quotient with the annual amount of 2½ per cent. on the emoluments of the whole Service, we find that 208644 : 62695 : : 2½ : ¾ per cent. on Salaries of the whole Service during their respective lives for the estimated contributions required to make up the deficiency in the present capital of the Fund.

43. Before I leave this part of the investigation, I would notice what appears to me like an error in the report of the Committee dated in 1849. When, in the 27th Paragraph of their report, they ground their calculations of what may be expected in future from the results of the preceding 10 years,

without showing that the number of married Members is not on the increase, and if I understand their reasoning they appear to consider that credit should be taken from the lapses among the Annuitants, by way of deduction from the number of fresh claimants which may be expected to become chargeable on the Fund. Supposing this to have been their meaning, I would merely remark that if our Annuity Tables be correct, the present value of the claims of the Pensioners, already admitted on the Fund, is that sum which with its accruing interest will be just sufficient to meet those claims from year to year as they become payable, so that, at the death of the last survivor of them, all the capital which now represent that present value, with all future interest which accrue thereon, will have been consumed and exhausted, and, as a consequence, no credit ought to be taken for lapses among the present Pensioners, by way of deduction from the liabilities entailed on the Fund by the deaths of its present Members. I have thought it necessary to make this remark, because I found this erroneous view taken by the Managers of other Societies, and the part quoted from the report of your Committee would seem to sanction a similar view of the subject under consideration.

44. As it appears by the documents received that only 5 per cent. interest is to be allowed on the additional Subscriptions required to provide Reversionary Pensions to the wives and children of existing Members without regard to other property, I must next endeavor to show what amount of Subscription bearing an interest of 5 per cent. will provide the same amount of Reversionary Pensions as a given amount of Subscription bearing an Interest of 8 per cent. will provide for; and for this purpose I would refer to Appendices XIII. and XIV. By the first of these it will be found that for the 263 Members therein embraced

The value of £1 Subptn. =	£2103·539	do. of £1 Pension £564·514
Ditto for 27 Annuitants =	£ 166·702	£ 70·254
Difference for 236 Members =	£ 1936·837	£494·260

and from these results it appears that at 8 per cent. a Subscription of £1 payable during the joint lives of a Member and his wife would provide an average Reversionary Pension of $\frac{1936·837}{494·260} = 3·91866$: and by the second of the said Appendices it will also be found that

The value of £1 Subptn. =	£2651·031	do. of £1 Pension £963·966
Ditto for 27 Annuitants =	£ 198·123	£ 105·315
Difference for 236 Members =	£ 2452·908	£ 858·651

so that at 5 per cent. a Subscription of £1 per annum would only provide a Reversionary Pension of $\frac{2452·908}{858·651} = 2·8567$. Hence it follows that if a Subscription of £1 per annum be sufficient to provide a Pension of £3·91866 and the like Subscription at 5 per cent. will only provide a Pension of 2·8567, we have 2·8567 : 3·91866 :: 1 : 1·3717 for .the required amount of Subscription at 5 per cent. necessary to provide the same amount of Reversionary Pension as £1 Subscription would provide at 8 per cent.; and inversely 3·91866 : 2·8567 :: 1 : ·729 for the amount of Subscription at 8 per cent. required to provide the same Pension as £1 Subscription at 5 per cent.

45. The expenses of management form another item, which ought not to be overlooked in the present investigation. By the document No. 8 I find that the charges in India for the year ending with April 1849 amounted to Rupees 3,166, and for the following year to Rupees 3,730, and in both years the charges of the Home Agency are amalgamated with the Pensions paid, and not distinguishable

from them. I do not therefore know the exact amount of the Annual expenses of management; but as a mere guess I shall estimate their amount at Rupees 7,000. Moreover by dividing the estimated liabilities exhibited by Art. 40 (= 30,19,336) by the average value of £1 Annuity payable by Monthly Instalments during the joint lives of the married Members and their respective wives as deduced in Appendix XIII. (= 8·207) we have $\frac{3019336}{8\cdot207}$ = ... Rs. 3,67,898

and if to this we add the Annual Subscription required to make up the Capital by Art. 42, } Rs. 62,695

and the estimated expenses of management, Rs. 7000

their sum,..... Rs. 4,37,593

for the estimated amount of Annual Subscription which would be required to make up the deficiency of the present Capital, and to secure the full Pensions held out by the New Regulations of the Fund to future Pensioners, on the supposition that the Hon'ble Company were to allow an Interest of 8 per cent. on the whole Assets of the Society.

46. It is, however, manifest that if only 5 per cent. Interest is to be allowed on a part of Annual Subscriptions of the Members, the Total Annual Income of the Society must be raised above the said sum of Rupees 4,37,593, and in order to determine to what extent the increase ought to be made, I must first endeavour to show on what amount of the Society's Income the Hon'ble Company ought to allow an Interest of 8 per cent. in conformity to their decision to allow only 5 per cent. Interest on the additional subscriptions required to secure the full Reversionary Pensions to the Wives and Children of the living Members without regard to other property. In order to do this, I would remark that the very decision implies that the Hon'ble Court of Directors never intended to make the reduction of Interest applicable to

any additional subscriptions which might be found requisite to secure the Pensions allowed under the late Regulations to the Incumbent Pensioners, or to make up a deficiency in the Capital requisite to afford them that security; or in the subscriptions requisite to defray the expenses of management, if ever any part of such subscription were invested to bear Interest. It was also shown in Art. 5 that, under the late Regulations, the Claims on the Fund, from the experience of the past, appear to have amounted to about 53 per cent. of what they would have amounted to under the New Regulations. For the reasons now stated, I am of opinion that the Hon'ble Court are morally bound to allow the Fund an interest of 8 per cent. on the following items, viz.

53 per cent. of the 3,67,898, shown by last Art.	=	Rupees,...	1,94,986
On the Income to make up the Deficit,	=	„ ...	62,695
and on the expenses of management, say,	=	„ ...	7,000
making together,.....		Rs.	2,64,681
and by deducting this sum from that in Art. 45, ...		„	4,37,593
there remains a balance of		Rs.	1,72,912

and this balance being multiplied by (1·3717), the number obtained in Art. 44, gives 172912 × 1·3717 = Rs. 2,37,184 for the amount of annual subscription to be improved at 5 per cent.

47. In order to determine the rate per cent. on salaries which ought to be charged on Single and on Married Members, so as to make up the forementioned income of 264681 + 237184 = Rupees 5,01,865, which exceeds the estimate made by your Committee, I would take the liberty of suggesting that whatever may be required of the Single Members, the married ones ought to pay as much more, exclusively of the small subscriptions paid for children. Supposing this suggestion adopted, by putting r for the Rate

per cent. to be charged on Single Members we have the following calculation, say, Total subscription,.... Rupees 5,01,865

From which deducting Children's subscription, ...	Rupees	36,149	
Honorable Court's Gratuity,..	„	25,600	
And the estimated deduction for minimum, ...	„	15,700	77,449
Leaving a Balance of			Rupees 4,24,416

It will also be found, on reference to Appendix XVI., that the estimated amount of $2\frac{1}{2}$ per cent. on the Salaries of the whole Service amounts to 2,08,644, and from the Document No. 7, that 2 per cent. on the Salaries of the married Members amounts to $\frac{248}{243} \times 104880 =$ 1,07,038

and consequently $\frac{r}{2\frac{1}{2}} \times 208644 =$ $83458\,r$

and $\frac{r}{2} \times 107038 =$ $53519\,r$

making together $136977\,r$

and this sum being made equal to the above Balance of 424416 gives $r = \frac{424416}{136977} = 3{\cdot}1$ per cent.

From this result I conclude that, in order to make up the deficiency of the existing Capital, and to provide for the Benefits, held out by the new Rules, to the Widows and Children of the living Members, and without making any provision for the Families of Annuitants already retired, the rate of subscription to be charged on Single Members ought rather to exceed 3 per cent. on their Salaries, and on Married Members somewhat more than 6 per cent.

48. Granting, however, that the best calculations which can be made on matters of this kind, can only be looked

upon as approximations to the truth, I should be disposed to recommend that the subscriptions of Single Members should be charged at 3 per cent. on their Salaries, and those of Married Members at 6 per cent. According to these scales the estimated Income of the Fund would be as under, viz.

3 per cent. on the Salaries of all	$=\frac{6}{5}\times$ 208644 =	2,50,373
Additional 3 per cent. on Married Members,	$=\frac{3}{2}\times$ 107038 =	1,60,557
Subscriptions for Children,.....		36,149
Honorable Court's Gratuity, ...		25,600
Estimated Deductions for Minima, ...		15,700
Making together,.....	Rs.....	4,88,379

and of this sum every effort should be made to obtain the sanction of the Honorable Court to allow the whole of the first item to be invested annually in the 8 per cent. account, which needs not be divided into separate portions for present and future incumbents; and in order to facilitate the periodical valuation of the Liabilities, I would make all the Children's Pensions chargeable on the 8 per cent. account, and charge the 5 per cent. account with the Pensions of as many of the future Widows as its amount will bear.

49. Assuming that the foregoing suggestions were adopted, the comparison of the Income of the Society, estimated in 8 per cent. subscriptions, with the estimated amount required as shown in Art. 45 would be as under, viz.

8 per cent. subscription, ...	Rs.....	2 50,373
5 per cent. ditto converted into 8 per cent..... = ·729 (488379–250373) =		1,73,506
Making together, ...	Rs.....	4,23,879
Estimated amount in Art. 45, ...		4,37,593
Leaving an estimated Deficiency of	Rs.....	13,714

towards which your Managers may be enabled to establish

some Marriage or Birth Fines, or Fines on Disparity of age between Husband and Wife; and in order to keep a watchful eye over the affairs of the Fund, there would be no great difficulty, by the assistance of the accompanying Tables, to make an annual estimate of the Liabilities.

50. Seeing that the estimated subscriptions required from your Members, considerably exceeds the amount paid for similar Benefits by the Members of the Bombay Civil Fund, I would remark that the difference has been caused by a want of vigilance in the management of your Fund in years past, to raise the subscriptions to a scale commensurate with the Liabilities of the Society. The difference between the present state of your Fund and the Bombay Civil Fund does not merely consist in the absolute Deficit shown by Art. 38, but also in the want of an unappropriated Fund, representing the value of the accrued Interests of the living Members, the annual Interest on which must now be made up by increased subscriptions; or I should rather have said that, had you a similar unappropriated Fund, the annual Interest thereof would have served, to a considerable extent, in lieu of the heavy contributions which are now shown to be required in order to place the Fund on a satisfactory foundation. Your Members will, however, find, on reflection, that, owing to the high rate of Interest allowed on your assets, no Fund in this country would enable the Members to provide for their families, the Benefits secured to them by your Fund, without requiring far higher contributions than you can afford to take, notwithstanding the unfortunate circumstances in which your Society is now placed.

51. Having at length completed my calculations, and made such incidental observations throughout as I deemed necessary to make, on the several points which came under

my consideration, I shall next endeavor to answer the several queries contained in your letter. With respect to the calculations of the Committee, I would say that they evidently show the sincere desire of the Members to place the Fund upon a solid foundation, and an undoubted evidence of a commendable diligence, and considerable research, to arrive at the truth, though I cannot say that on all the points which occupied their attention they have been successful. In answer to your first query, I beg to say, that if the old Rules had continued in force, no less income than about Rs. 2,64,700 would have been sufficient to make up the Deficiency in the accumulated Capital of the Society, and to secure to the Widows and Children of the living Members the Benefits held out under those Rules, according to the deductions hereinbefore made in Art. 46. And from what I have shown in Art. 48, it appears that such Income would somewhat exceed three per cent. on the Salaries of the whole Service: and if this be the case, I must answer your second query in the negative, by stating that 2½ per cent. on the Salaries of the whole Service, with the accumulated Capital of the Fund, would not be sufficient to meet the present and future Liabilities under the old Rules of the Society. Your next three queries will be found answered on reference to Art. 47.

52. With respect to your next query, I am of opinion, that it is absolutely necessary in the present state of the Fund that every Retiring Annuitant should, on retirement, make up the amount of his subscription with Interest to Rs. 25,000, in order to entitle his family to an Interest in the Fund, and also to continue to subscribe at the same rate on his Annuity, as that required from Subscribers in the Service. Unless this were done, it is manifest that those who may soon retire, and who have hitherto contributed

but little toward the objects of the Fund, would be placed in more favorable circumstances than those who may long continue in the Service to contribute at the increased rate now required.

53. With respect to the proposed deduction for minimum, I would state, that the present state of the Fund is not such that it can be dispensed with, and in estimating the assets of the Society it will be found, on reference to Articles 6 and 48, that I have credited the Annual Income with 15,700 to be derived from that source; and I cannot admit it to be so great a hardship upon the family of a deceased Member, to have their Pensions for a limited period reduced by one-sixth, as it would be for the Fund to grant the full Pensions for less than one-third of their computed value. Your next question on the same subject involves so many considerations, such as the health of the Member, the probable number of his family, and the mode of calculation, that I really have not time at present, without either losing the benefit of my usual summer relaxation, or delaying my Report till the return of the autumn, to furnish you with a satisfactory answer. As an answer to your next query, you will find my opinion on reference to Article 37, that I do not think the Liabilities of the Fund would be increased by granting to Fatherless Daughters marriage portions of £300 each.

54. In order to provide for the increased Deficiency shown in Art. 49, I am of opinion, that a certain number of days' salary should be charged on marriage, for each year above a given number (say 5 years,) that the age of a Member's Wife should fall below his own age, such as 12 days' pay for 6 years, 14 days for 7 years, and so on, or in such other proportion as the Managers may consider sufficient to make up the said deficiency of subscriptions.

You will find, on reference to Art. 36, that, on moral grounds, I am favorable to the continuance of Half Pensions to re-married Widows, but that I do not think such measure would benefit the Fund in a pecuniary point of view: and you will find that the Tables for the valuation of the Wives' Reversionary Pensions Nos. XVIII. and XIX. are both constructed on the supposition that *future* widows will be allowed to retain half their Pensions in case of their re-marriage. The suggestion which I made in Art. 47 shows that in apportioning the relative payments of the Single and Married Members I did not retain the same proportion as recommended by the Committee: but if I had found their rates had been sufficient, I do not think I should have recommended any alteration to be made in the relative proportions of the two classes.

55. Whilst I was constructing the Tables and writing the foregoing part of my report, I did not bear in mind the wishes of your Managers that I should construct for them a set of commutation Tables, until I was reminded of the circumstance by answering your queries: but when so reminded I constructed Table XX. by computing the values of Annuities at 5 per cent. from Table I. from age 20 to age 40, and after the latter age continuing the Table in accordance with the Northampton Table, adding at each age the fraction of ·458 for monthly payments, and taking the means between the sums thereby obtained for every two consecutive ages as hereinbefore explained.

56. In the construction of Table XXI. I formed the Column D in the manner explained in Art. 21, and formed the Column headed with the letter n by setting against each age the sum of the numbers in Column D opposite all higher ages up to age 21, which number would be equal to $N - {}^{t}N$ in a Table formed in the manner explained in Art. 21, if com-

pleted to the end of life. But in order to avoid this trouble, and to obtain the value of an Annual Subscription payable by monthly instalments on the joint lives of father and son up to the time when the latter shall attain the age of 21, I had recourse to the Formula $A - \frac{{}^{t}D.{}^{t}A}{D}$ and added the fraction $\frac{11}{24}$ both to the A and to the ${}^{t}A$, and thereby transformed it into the following viz. $A + \frac{11}{24} - \frac{{}^{t}D}{D}\left({}^{t}A + \frac{11}{24}\right) = \frac{N}{D} + \frac{11}{24} - \frac{{}^{t}D}{D}\left(\frac{{}^{t}N}{{}^{t}D} + \frac{11}{24}\right) = \frac{N}{D} + \frac{11}{24} - \frac{{}^{t}N}{D} - \frac{11\,{}^{t}D}{24\,D} = \frac{N - {}^{t}N}{D} + \frac{11}{24}\left(\frac{D - {}^{t}D}{D}\right) = \frac{n + \frac{11}{24}(D - {}^{t}D)}{D} = \frac{K}{D}$ and by this Formula I obtained at each birth-day the value of £1 Annuity payable by monthly instalments on the joint lives of the father and son up to the time when the latter shall attain the age of 21 years, and then took the means between the values so obtained for every two consecutive birth-days. Table XXII. was formed from Tables I. and IV. exactly in the same manner as Columns D, N and AB of Table XVII. were formed from Tables I. and II.

57. I concur with the Committee in opinion that the general rate of subscription fixed by them at 2½ per cent. on the Salaries of Single and Married Members, and hereinbefore recommended to be increased to 3 per cent., should be commuted at 5 per cent. by Table XX., which Table I should have adopted in the formation of Appendix XVI. if I had formed the Table before that Appendix was constructed. The additional 3 per cent. proposed to be charged on Married Members, and made payable during the joint lives of the Members and their respective Wives, may be commuted by Table XIX., with the understanding, however, that such commutation would not entitle a subsequently

taken Wife to the benefit of the Fund without a further subscription as well as marriage Fine, charged in such manner as the Committee may determine after they shall have maturely considered this Report. The subscriptions for Sons may also be commuted by the assistance of Table XXI. and those for Daughters by Table XXII. I believe that I have now offered my opinion on every point contained in your letters; and in the preceding part of this Report, I omitted no opportunity of giving every explanation which I considered might prove useful to your Managers. Trusting, therefore, that what I have done will meet with their approval, while, at the same time, I fear that the increase of subscriptions, which I considered it incumbent on me to recommend, will cause them disappointment.

I remain, Sir,

Your most obedient Servant,

GRIFFITH DAVIES.

Guardian Assurance Office,
21*st June*, 1851.

TABLE I.

Showing the Rate of Mortality which may be expected to obtain among the Members of the Bengal Civil Fund, as deduced from the List of Messrs. Dodwell and Miles, up to the Age of 40.

Age.	Number Living.	Decrement.	Mortality per Cent.	No. Living in middle of next year.	Sum of the numbers in the last Column.	Expectation of Life.
20	5090	60	1·1788	5060	171481	33·69
21	5030	66	1·3121	4997	166421	33·09
22	4964	70	1·4102	4929	161424	32·52
23	4894	71	1·4502	4858	156495	31·98
24	4823	72	1·4928	4787	151637	31·44
25	4751	73	1·5365	4715	146850	30·91
26	4678	73	1·5605	4641	142135	30·38
27	4605	73	1·5852	4569	137494	29·86
28	4532	73	1 6108	4495	132925	29·33
29	4459	74	1·6596	4422	128430	28·80
30	4385	74	1·6876	4348	124008	28·28
31	4311	74	1·7165	4274	119660	27·76
32	4237	75	1·7701	4200	115386	27·23
33	4162	75	1·8020	4124	111186	26·71
34	4087	75	1·8351	4050	107062	26·20
35	4012	75	1·8694	3974	103012	25·69
36	3937	75	1·9050	3900	99038	25·15
37	3862	75	1·9420	3824	95138	24·63
38	3787	76	2·0069	3749	91314	24·11
39	3711	76	2·0480	3673	87565	23·60
40	3635	76	2·0908	3597	83892	23·08
41	3559	77	2·1635	3521	80295	22·56
42	3482	78	2·2401	3443	76774	22·04
43	3404	78	2·2914	3365	73331	21·54
44	3326	78	2 3452	3287	69966	21·03
45	3248	78	2·4015	3209	66679	20·52
46	3170	78	2·4606	3131	63470	20·02
47	3092	78	2·5227	3053	60339	19·51
48	3014	78	2·5879	2975	57286	19·00
49	2936	79	2·6908	2897	54311	18·49
50	2857	81	2·8351	2817	51414	17·99
51	2776	82	2·9539	2735	48597	17·50
52	2694	82	3.0438	2653	45862	17·02
53	2612	82	3·1394	2571	43209	16·54
54	2530	82	3·2411	2489	40638	16·06

TABLE I.—*(Continued.)*

Age.	Number Living.	Decrement.	Mortality per Cent.	No. Living in middle of next year.	Sum of the numbers in the last Column.	Expectation of Life.
55	2448	82	3·3497	2407	38149	15·58
56	2366	82	3·4658	2325	35742	15·10
57	2284	82	3·5902	2243	33417	14·63
58	2202	82	3·7239	2161	31174	14·15
59	2120	82	3·8679	2079	29013	13·68
60	2038	82	4·0235	1997	26934	13·21
61	1956	82	4·1922	1915	24937	12·75
62	1874	81	4·3223	1833	23022	12·28
63	1793	81	4·5176	1753	21189	11·81
64	1712	80	4·6729	1672	19436	11·35
65	1632	80	4·9020	1592	17764	10·88
66	1552	80	5·1546	1512	16172	10·42
67	1472	80	5·4348	1432	14660	9·96
68	1392	80	5·7471	1352	13228	9·50
69	1312	80	6·0975	1272	11876	9·05
70	1232	80	6·4935	1192	10604	8·60
71	1152	80	6·9444	1112	9412	8·17
72	1072	80	7·4627	1032	8300	7·74
73	992	80	8·0645	952	7268	7·33
74	912	80	8·7719	872	6316	6·92
75	832	80	9·6154	792	5444	6·54
76	752	77	10·2393	713	4652	6·18
77	675	73	10·8148	639	3939	5·83
78	602	68	11·2957	568	3300	5·48
79	534	65	12·1723	501	2732	5·11
80	469	63	13·4328	438	2231	4·75
81	406	60	14·7783	376	1793	4·41
82	346	57	16·4740	317	1417	4·09
83	289	55	19·0311	262	1100	3·80
84	234	48	20·5128	210	838	3·58
85	186	41	22·0430	165	628	3·38
86	145	34	23·4483	128	462	3·19
87	111	28	25·2252	97	334	3·01
88	83	21	25·3012	73	237	2·86
89	62	16	25·8065	54	165	2·66
90	46	12	26·0869	40	111	2·41
91	34	10	29·4118	29	71	2·09
92	24	8	33·3333	20	42	1·75
93	16	7	43·3750	12·5	22	1·37
94	9	5	55·5556	6·5	9·5	1·05
95	4	3	75·0000	2·5	3·0	0·75
96	1	1	100·0000	0·5	0·5	0·50

TABLE II.

Showing the Rate of Mortality which may be expected to occur among the Wives of the Members of the Bengal Civil Fund.

Age.	Number Living.	Decrement.	Mortality per Cent.	No. Living in middle of next year.	Sum of the numbers in the last Column.	Expectation of Life.
14	2212	14	·633	2205	89877	40·63
15	2198	15	·682	2190	87672	39·89
16	2183	15	·687	2176	85482	39·16
17	2168	16	·738	2160	83306	38·43
18	2152	17	·790	2143	81146	37·71
19	2135	17	·796	2127	79003	37·00
20	2118	18	·850	2109	76876	36·30
21	2100	18	·857	2091	74767	35 60
22	2082	19	·913	2072	72676	34·91
23	2063	19	·921	2054	70604	34·22
24	2044	19	·930	2034	68550	33·55
25	2025	19	·938	2016	66516	32·85
26	2006	21	1·047	1995	64500	32·15
27	1985	22	1·108	1974	62505	31·49
28	1963	23	1·172	1952	60531	30·84
29	1940	24	1·237	1928	58579	30·19
30	1916	25	1·305	1903	56651	29·57
31	1891	26	1·375	1878	54748	28·95
32	1865	27	1·447	1852	52870	28·35
33	1838	27	1·469	1824	51018	27·76
34	1811	28	1·546	1797	49194	27·16
35	1783	28	1·570	1769	47397	26·58
36	1755	29	1·652	1741	45628	26·00
37	1726	29	1·680	1711	43887	25·43
38	1697	30	1·768	1682	42176	24·85
39	1667	30	1·800	1652	40494	24·29
40	1637	31	1·894	1622	38842	23·73
41	1606	32	1·993	1590	37220	23·18
42	1574	32	2·033	1558	35630	22·64
43	1542	33	2·140	1525	34072	22·10
44	1509	33	2·187	1493	32547	21·57
45	1476	34	2·304	1459	31054	21·04
46	1442	34	2·358	1425	29595	20·52
47	1408	34	2·415	1391	28170	20·01
48	1374	34	2·475	1357	26779	19·49
49	1340	35	2·612	1322	25422	18·97

TABLE II.—*(Continued.)*

Age.	Number Living.	Decrement.	Mortality per Cent.	No. Living in middle of next year.	Sum of the numbers in the last Column.	Expectation of Life.
50	1305	35	2·682	1288	24100	18·41
51	1270	36	2·835	1252	22812	17·96
52	1234	36	2·917	1216	21560	17·47
53	1198	36	3·005	1180	20344	16·98
54	1162	36	3·098	1144	19164	16·49
55	1126	36	3·197	1108	18020	16·00
56	1090	36	3·303	1072	16912	15·52
57	1054	36	3·416	1036	15840	15·03
58	1018	36	3·536	1000	14804	14·54
59	982	36	3·667	964	13804	14·06
60	946	36	3·805	928	12840	13·57
61	910	36	3·956	892	11912	13·09
62	874	36	4·121	856	11020	12·61
63	838	36	4·296	820	10164	12·13
64	802	36	4·489	784	9344	11·65
65	766	36	4·700	748	8560	11·17
66	730	36	4·932	712	7812	10·70
67	694	36	5·187	676	7100	10·23
68	658	36	5·471	640	6424	9·76
69	622	37	5·949	603	5784	9 30
70	585	37	6·325	567	5181	8·86
71	548	37	6·752	529	4614	8·42
72	511	37	7·241	493	4085	7·99
73	474	37	7·806	455	3592	7·58
74	437	36	8·238	419	3137	7·18
75	401	36	8·978	383	2718	6·78
76	365	35	9·589	348	2335	6·40
77	330	34	10·303	313	1987	6·02
78	296	33	11·149	279	1674	5·65
79	263	32	12·167	247	1395	5·30
80	231	30	12·987	216	1148	4·97
81	201	29	14·428	187	932	4·64
82	172	27	15·698	158	745	4·33
83	145	25	17·241	133	585	4·05
84	120	23	19·167	108	454	3·78
85	97	20	20·619	87	346	3·57
86	77	17	22·078	69	259	3·36
87	60	14	23·333	53	190	3·17
88	46	11	23·913	40	137	2·93
89	35	9	25·714	31	97	2·77

TABLE II.—*(Continued.)*

Age.	Number Living.	Decrement.	Mortality per Cent.	Number Living in middle of next year.	Sum of the numbers in the last Column.	Expectation of Life.
90	26	7	26·923	22	66	2·54
91	19	5	26·316	17	44	2·32
92	14	4	28·571	12	27	1·93
93	10	4	40·000	8	15	1·50
94	6	3	50·000	4·5	7	1·17
95	3	2	66·667	2·0	2·5	·83
96	1	1	100·000	0·5	0·5	·50

TABLE III.

Showing the Rate of Mortality which may be expected to occur among the Widows and Children on the Bengal Civil Fund.

Age.	Number Living.	Decrement.	Mortality per Cent.	No. Living in middle of next year.	Sum of the numbers in the last Column.	Expectation of Life.
0	10000	635	6·350	9682	479965	47·99
1	9365	344	3·895	9193	470283	50·22
2	9021	263	2·915	8890	461090	51·11
3	8758	176	2·010	8670	452200	51·63
4	8582	126	1·468	8519	443530	51·68
5	8456	95	1·123	8408	435011	51·44
6	8361	71	·849	8326	426603	51·02
7	8290	66	·796	8257	418277	50·45
8	8224	59	·717	8194	410020	49·86
9	8165	53	·649	8139	401826	49·21
10	8112	50	·616	8087	393687	48·53
11	8062	49	·608	8037	385600	47·83
12	8013	49	·611	7989	377563	47·12
13	7964	50	·628	7939	369574	46·41
14	7914	50	·632	7889	361635	45·70
15	7864	51	·649	7838	353746	44·98
16	7813	54	·691	7786	345908	42·27

TABLE III.—*(Continued.)*

Age.	Number Living.	Decrement.	Mortality per Cent.	No. Living in middle of next year.	Sum of the numbers in the last column.	Expectation of Life.
17	7759	58	·748	7730	338122	43·58
18	7701	61	·792	7671	330392	42·90
19	7640	62	·812	7607	322721	42·24
20	7578	64	·845	7545	315114	41·58
21	7514	65	·865	7481	307569	40·93
22	7449	65	·873	7417	300088	40·29
23	7384	66	·894	7351	292671	39·64
24	7318	68	·929	7284	285320	38·99
25	7250	68	·938	7218	278036	38·35
26	7182	68	·947	7148	270820	37·71
27	7114	70	·984	7079	263672	37·06
28	7044	70	·994	7009	256593	36·43
29	6974	71	1·018	6938	249584	35·79
30	6903	71	1·029	6868	242646	35·15
31	6832	72	1·054	6796	235778	34·51
32	6762	73	1·080	6723	228982	33·87
33	6687	73	1·092	6651	222259	33·24
34	6614	73	1·104	6577	215608	32·60
35	6541	73	1·116	6505	209031	31·96
36	6468	74	1·146	6431	202526	31·31
37	6394	74	1·157	6357	196095	30·67
38	6320	74	1·191	6283	189738	30·02
39	6246	73	1·169	6209	183455	29·37
40	6173	74	1·199	6136	177246	28·71
41	6099	74	1·213	6062	171110	28·06
42	6025	74	1·227	5988	165048	27·39
43	5951	75	1·260	5913	159060	26·73
44	5876	75	1·276	5839	153147	26·06
45	5801	76	1·310	5763	147308	25·39
46	5725	76	1·326	5687	141545	24·72
47	5649	78	1·381	5610	135858	24·05
48	5571	78	1·409	5532	130248	23·38
49	5493	80	1·456	5453	124716	22·70
50	5413	82	1·515	5372	119263	22·03
51	5331	83	1·557	5289	113891	21·36
52	5248	84	1·601	5206	108602	20·69
53	5164	88	1·704	5120	103396	20·02
54	5076	89	1·753	5032	98276	19·36
55	4987	93	1·865	4940	93244	18·70
56	4894	97	1·982	4846	88304	18·04

TABLE III.—*(Continued.)*

Age.	Number Living.	Decrement.	Mortality per Cent.	No. Living in middle of next year.	Sum of the numbers in the last Column.	Expectation of Life.
57	4797	101	2·105	4746	83458	17·40
58	4696	104	2·215	4644	78712	16·76
59	4592	108	2·352	4538	74068	16·13
60	4484	111	2·475	4429	69530	15·50
61	4373	115	2·630	4315	65101	14·89
62	4258	119	2·795	4199	60786	14·28
63	4139	125	3·020	4076	56587	13·67
64	4014	129	3·214	3950	52511	13·08
65	3885	136	3·501	3817	48561	12·50
66	3749	141	3·761	3678	44744	11·94
67	3608	147	4·074	3535	41066	11·38
68	3461	151	4·363	3385	37531	10·84
69	3310	157	4·743	3232	34146	10·32
70	3153	162	5·138	3072	30914	9·80
71	2991	166	5·550	2908	27842	9·31
72	2825	170	6·018	2740	24934	8·83
73	2655	174	6·554	2568	22194	8·36
74	2481	176	7·094	2393	19626	7·91
75	2305	178	7·722	2216	17233	7·48
76	2127	178	8·369	2038	15017	7·06
77	1949	177	9·082	1860	12979	6·66
78	1772	175	9·876	1685	11119	6·28
79	1597	172	10·770	1511	9434	5·91
80	1425	165	11·579	1342	7923	5·56
81	1260	159	12·619	1181	6581	5·22
82	1101	149	13·533	1026	5400	4·90
83	952	140	14·706	882	4374	4·59
84	812	128	15·764	748	3492	4·30
85	684	117	17·105	626	2744	4·01
86	567	104	18·342	515	2118	3·74
87	463	91	19·654	417	1603	3·46
88	372	79	21·237	333	1186	3·19
89	293	66	22·526	260	853	2·91
90	227	55	24·229	199	593	2·61
91	172	46	26·744	149	394	2·29
92	126	39	30·952	107	245	1·95
93	87	35	40·230	70	138	1·59
94	52	25	48·077	39·5	68	1·31
95	27	15	55·555	19·5	28·5	1·02
96	12	9	75·000	7·5	9·0	·75
97	3	3	100·000	1·5	1·5	·50

TABLE IV.

Showing the Rate of Marriage, which may be expected to occur among the Widows and Daughters on the Bengal Civil Fund.

Age.	Number Living and Unmarried.	Marriage per Cent.	Deaths or Marriage per Cent.	No. gone off by Marriage.	Ditto by Death or Marriage.	No. Living Unmarried at middle of next year.	Sum of the numbers in last Column.	Expectation of Life and Unmarried.
0	40280		6·351		2558	39001	1086348	26·97
1	37722		3·894		1469	36987	1047347	27·76
2	36253		2·916		1057	35725	1010360	27·87
3	35196		2·009		707	34842	974635	27·69
4	34489		1·467		506	34236	939793	27·25
5	33983		1·124		382	33792	905557	26·65
6	33601		·848		285	33459	871765	25·94
7	33316		·795		265	33183	838306	25·16
8	33051		·717		237	32933	805123	24·36
9	32814		·649		213	32707	772190	23·53
10	32601		·616		201	32501	739483	22·68
11	32400		·608		197	32301	706982	21·82
12	32203		·612		197	32105	674681	20·95
13	32006		·628		201	31905	642576	20·08
14	31805	1·0	1·626	318	517	31547	610671	19·20
15	31288	2·0	2·637	624	825	30875	579124	18·51
16	30463	3·0	3·670	914	1118	29904	548249	18·00
17	29345	4·0	4·716	1174	1384	28653	518345	17·66
18	27961	6·0	6·745	1678	1886	27018	489692	17·51
19	26075	8·0	8·748	2086	2281	24935	462674	17·74
20	23794	9·0	9·767	2141	2324	22632	437739	18·40
21	21470	8·4	9·194	1804	1974	20483	415107	19·33
22	19496	7·6	8·407	1482	1639	18676	394624	20·24
23	17857	7·3	8·126	1303	1451	17132	375948	21·05
24	16406	6·6	7·473	1803	1226	15793	358816	21·87
25	15180	6·1	6·976	926	1059	14650	343023	22·59
26	14121	5·6	6·494	791	917	13663	328373	23·25
27	13204	5·2	6·135	687	810	12799	314710	23·83
28	12394	4·7	5·648	583	700	12044	301911	24·36
29	11694	4·2	5·174	491	605	11392	289867	24·78
30	11089	3·8	4·789	421	531	10823	278475	25·11
31	10558	3·5	4·518	370	477	10320	267652	25·35
32	10081	3·2	4·246	323	428	9867	257332	25·53
33	9653	3·0	4·061	290	392	9457	247465	25·64
34	9261	2·8	3·876	259	359	9081	238008	25·70
35	8902	2·6	3·685	231	328	8738	228927	25·72
36	8574	2·4	3·522	206	302	8423	219189	25·56

TABLE IV.—*(Continued)*

Age.	Number Living and Unmarried.	Marriage per Cent.	Deaths or Marriage per Cent.	No. gone off by Marriage.	Ditto by Death or Marriage.	No. Living Unmarried at middle of next year.	Sum of the numbers in last Column.	Expectation of Life and Unmarried.
37	8272	2·2	3·324	182	275	8135	210766	25·48
38	7997	2·0	3·151	160	252	7871	202631	25·34
39	7745	1·8	2·944	139	228	7631	194760	25·15
40	7517	1·6	2·780	120	209	7412	187129	24·89
41	7308	1·4	2·600	102	190	7213	179717	24·59
42	7118	1·3	2·515	93	179	7029	172504	24·23
43	6939	1·2	2·436	83	169	6854	165475	23·85
44	6770	1·1	2·363	74	160	6690	158621	23·43
45	6610	1·0	2·300	66	152	6534	151931	22·98
46	6458	1·0	2·307	65	149	6384	145397	22·51
47	6309	1·0	2·378	63	150	6234	139013	22·04
48	6159	1·1	2·484	68	153	6082	132779	21·56
				21400				
49	6006	1·2	2·631	72	158	5927	126697	21·10
50	5848	1·3	2·804	76	164	5766	120770	20·65
51	5684	1·2	2·727	68	155	5607	115004	20·23
52	5529	1·1	2·695	61	149	5454	109397	19·79
53	5380	1·0	2·677	54	144	5308	103943	19·32
54	5236	0·9	2·636	47	138	5167	98635	18·84
55	5098	0.7	2·550	36	130	5033	93468	18·33
56	4968	0·5	2·476	25	123	4907	88435	17·80
57	4845	0·4	2·497	19	121	4784	83528	17·26
58	4724	0·3	2·498	14	118	4665	78744	16·67
59	4606	0·2	2·562	9	118	4547	74079	16·08
60	4488	0·1	2·562	4	115	4431	69532	15·49
61	4373		2·630		115	4315	65101	14·89
62	4258		2·795		119	4199	60786	14·28
63	4139		3·020		125	4076	56587	13·67
64	4014		3·214		129	3950	52511	13·08
65	3885		3·501		136	3817	48561	12·50
66	3749		3·761		141	3678	44744	11·94
67	3608		4·074		147	3535	41066	11·38
68	3461		4·363		151	3385	37531	10·84
69	3310		4·743		157	3232	34146	10·32
70	3153		5·138		162	3072	30914	9·80
71	2991		5·550		166	2908	27842	9·31
72	2825		6·018		170	2740	24934	8·83
73	2655		6·554		174	2568	22194	8·36
74	2481		7·094		176	2393	19626	7·91

TABLE IV.—*(Continued)*

Age.	Number Living and Unmarried.	Marriage per Cent.	Deaths or Marriage per Cent.	No. gone off by Marriage.	Ditto by Death or Marriage.	No. Living Unmarried at middle of next year.	Sum of the numbers in the last Column.	Expectation of Life and Unmarried.
75	2305		7·722		178	2216	17233	7·48
76	2127		8·369		178	2038	15017	7·06
77	1949		9·082		177	1860	12979	6·66
78	1772		9·876		175	1685	11119	6·28
79	1597		10·170		172	1511	9434	5·91
80	1425		11·579		165	1342	7923	5·56
81	1260		12·619		159	1181	6581	5·22
82	1101		13·533		149	1026	5400	4·90
83	952		14·706		140	882	4374	4·59
84	812		15·764		128	748	3492	4·30
85	684		17·105		117	626	2744	4·01
86	567		18·342		104	515	2118	3·74
87	463		19·654		91	417	1603	3·46
88	372		21·237		79	333	1186	3·19
89	293		22·526		66	260	853	2·91
90	227		24·229		55	199	593	2·61
91	172		26·744		46	149	394	2·29
92	126		30·952		39	107	245	1·95
93	87		40·230		35	70	138	1·59
94	52		48·077		25	39·5	68	1·31
95	27		55·555		15	19·5	28·5	1·02
96	12		75·000		9	7·5	9·0	·75
97	3		100·000		3	1·5	1·5	·50

TABLE V.

Showing at 8 per Cent. the values of Annuities on the lives of the Widows and Children on the Bengal Civil Fund.

Age.	D	N	A	A + ¾
0	10000·00	99914·11	9·991	10·716
1	8671·30	91242·81	10·522	11·247
2	7734·05	83508·76	10·798	11·523
3	6952·38	76556·38	11·012	11·737
4	6308·02	70248·36	11·136	11·861
5	5755·01	64493·35	11·206	11·931
6	5268·85	59224·50	11·240	11·965
7	4837·13	54387·37	11·244	11·969
8	4443·17	49944·20	11·241	11·966
9	4084·54	45859·66	11·228	11·953
10	3757·42	42102·24	11·205	11·930
11	3457·65	38644·59	11·177	11·902
12	3182·07	35462·52	11·144	11·869
13	2928·35	32534·17	11·110	11·835
14	2694·41	29839·76	11·075	11·800
15	2479·06	27360·70	11·037	11·762
16	2280·54	25080·16	10·998	11·723
17	2097·02	22983·14	10·960	11·685
18	1927·17	21055·97	10·926	11·651
19	1770·28	19285·69	10·894	11·619
20	1625·85	17659·84	10·862	11·587
21	1492·70	16167·14	10·831	11·556
22	1370 17	14796·97	10·799	11·524
23	1257·61	13539·36	10·766	11·491
24	1154 04	12385·32	10·732	11·457
25	1058·63	11326·69	10·699	11·424
26	971·019	10355·67	10·665	11·390
27	890·579	9465·091	10·628	11·353
28	816·496	8648·595	10·592	11·317
29	748·502	7900·093	10·555	11·280
30	686·002	7214·091	10·516	11·241
31	628·654	6585·437	10·475	11·200
32	575·952	6009·485	10·434	11·159
33	527·530	5481·955	10·392	11·117
34	483·122	4998·833	10·347	11·072
35	442·397	4556·436	10·299	11·024
36	405·056	4151·380	10·249	10·974
37	370·761	3780·617	10·197	10·922
38	339·321	3441·298	10·142	10·867
39	310·510	3130·788	10·083	10·808
40	284·149	2846·639	10·018	10·743

TABLE V.—*(Continued.)*

Age.	D	N	A	A + ¾
41	259·947	2586·692	9.951	10·676
42	237·771	2348·921	9·879	10·604
43	217·454	2131·467	9·802	10·527
44	198·809	1932·658	9·721	10·446
45	181·733	1750·925	9·635	10·360
46	166·067	1584·858	9·543	10·268
47	151·724	1433·134	9·446	10·171
48	138·546	1294·588	9·344	10·069
49	126·487	1168·101	9·235	9·960
50	115·412	1052·689	9·121	9·846
51	105·244	947·4450	9·002	9·727
52	95.9309	851·5141	8·876	9·601
53	87·4032	764·1109	8·742	9·467
54	79·5497	684·5612	8·605	9·330
55	72·3657	612·1955	8·460	9·185
56	65·7557	546·4398	8·310	9·035
57	59·6782	486·7616	8·156	8·881
58	54·0941	432·6675	7·998	8·723
59	48·9779	383·6896	7·834	8·559
60	44·2833	338·4063	7·664	8·389
61	39·9881	299·4182	7·488	8·213
62	36·0523	263·3659	7·305	8·030
63	32·4488	230·9171	7·116	7·841
64	29·1378	201·7793	6·925	7·650
65	26·1124	175·6669	6·727	7·452
66	23·3318	152·3351	6·529	7·254
67	20·7910	131·5441	6·327	7·052
68	18·4666	113·0775	6·123	6·848
69	16·3527	96·72480	5·915	6·640
70	14·4232	82·30160	5·706	6·431
71	12·6686	69·63300	5·497	6·222
72	11·0792	58·55380	5·285	6·010
73	9·64118	48·91262	5·073	5·798
74	8·34197	40·57065	4·863	5·588
75	7·17611	33·39454	4·654	5·379
76	6·13143	27·26311	4·446	5·171
77	5·20215	22·06096	4·241	4·966
78	4·37936	17·68160	4·037	4·762
79	3·65450	14·02710	3·838	4·563
80	3·01936	11·00774	3·646	4·371
81	2·47199	8·53575	3·453	4·178
82	2·00009	6·53566	3·268	3·993
83	1·60127	4·93439	3·082	3·807
84	1·26462	3·66977	2·902	3·627

TABLE V.—*(Continued.)*

Age.	D	N	A	A + ¾
85	·98636	2·68341	2·721	3·446
86	·75708	1·92633	2·544	3·269
87	·57242	1·35391	2·365	3·090
88	·42585	·92806	2·179	2·904
89	·31057	·61749	1·988	2·713
90	·22279	·39470	1·772	2·497
91	·15627	·23843	1·526	2·251
92	·10599	·13244	1·250	1·975
93	·06777	·06467	·954	1·679
94	·03750	·02717	·725	1·450
95	·01803	·00914	·507	1·232
96	·00742	·00172	·232	·957
97	·00172	·00000	·000	·725

TABLE VI.

Showing at 8 *per Cent. the values of Annuities to cease on Death or Marriage, according to the rate of Casualties in Table IV.*

Age.	D	N	A	A + ¾
0	40280·0	358754·0	8·907	9·632
1	34927·8	323826·2	9·271	9·996
2	31081·1	292745·1	9·419	10·144
3	27939·7	264805·4	9·478	10·203
4	25350·4	239455·0	9·446	10·171
5	23128·3	216326·7	9·353	10·078
6	21174·3	195152·4	9·216	9·941
7	19439·6	175712·8	9·039	9·764
8	17856·4	157856·4	8·840	9·565
9	16415·2	141441·2	8·616	9·341
10	15100·6	126340·6	8·367	9·092
11	13895·8	112444·8	8·092	8·817
12	12788·3	99656·51	7·793	8·518
13	11768·5	87888·01	7·468	8·193
14	10828·4	77059·61	7·116	7·841
15	9863·28	67196·33	6·813	7·538
16	8891·86	58304·47	6·557	7·282
17	7931·04	50373·43	6·351	7·076

TABLE VI.—*(Continued.)*

Age.	D	N	A	A + ½
18	6997·21	43376·22	6·199	6·924
19	6041·89	37334·33	6·179	6·904
20	5104·96	32229·37	6·313	7·038
21	4265·14	27964·23	6·556	7·281
22	3586·10	24378·13	6·798	7·523
23	3041·32	21336·81	7·016	7·741
24	2587·22	18749·59	7·247	7·972
25	2216·55	16533·04	7·459	8·182
26	1909·18	14623·86	7·660	8·385
27	1652·97	12970·89	7·847	8·572
28	1436·63	11534·26	8·029	8·754
29	1255·09	10279·17	8·190	8·915
30	1102·00	9177·167	8·328	9·053
31	971·506	8205·661	8·446	9·171
32	858·902	7346·759	8·554	9·279
33	761·515	6585·244	8·648	9·373
34	676·473	5908·771	8·735	9·460
35	602·083	5306·688	8·814	9·539
36	536·943	4769·745	8·883	9·608
37	479·658	4290·087	8·944	9·669
38	429·363	3860·724	8·992	9·717
39	385·030	3475·694	9·027	9·752
40	346·015	3129 679	9·045	9·770
41	311·476	2818·203	9·048	9·773
42	280·906	2537·297	9·033	9·758
43	253·556	2283·741	9·007	9·732
44	229·057	2054·684	8·970	9·695
45	207·077	1847.607	8·922	9·647
46	187·329	1660·278	8·863	9·588
47	169·451	1490·827	8·798	9·523
48	153·169	1337·658	8·733	9·458
49	138·300	1199·358	8·672	9·397
50	124·687	1074·671	8·619	9·344
51	112·213	962·4580	8·577	9·302
52	101·067	861·3910	8·523	9·248
53	91·0591	770·3319	8·460	9·185
54	82·0572	688·2747	8·388	9·113
55	73·9764	614·2983	8·304	9·029
56	66·7500	547·5483	8·203	8·928
57	60·2753	487·2730	8·084	8·809
58	54·4167	432·8563	7·954	8·679
59	49·1272	383·7291	7·811	8 536
60	44·3228	339·4063	7·658	8·383
61	39·9881	299·4182	7·488	8·213

TABLE VI.—*(Continued.)*

Age.	D	N	A	A + ½
62	36·0523	263·3659	7·305	8·030
63	32·4488	230·9171	7·116	7·841
64	29·1378	201·7793	6·925	7·650
65	26·1124	175·6669	6·727	7·452
66	23·3318	152·3351	6·529	7·254
67	20·7910	131·5441	6·327	7·052
68	18·4666	113·0775	6·123	6·848
69	16·3527	96·72480	5·915	6·640
70	14·4232	82·30160	5·706	6·431
71	12·6686	69·63300	5·497	6·222
72	11·0792	58·55380	5·285	6·010
73	9.64118	48·91262	5·073	5·798
74	8·34197	40·57065	4·863	5·588
75	7·17611	33·39454	4·654	5·379
76	6·13143	27·26311	4·446	5·171
77	5·20215	22·06096	4·241	4·966
78	4·37936	17·68160	4·037	4·762
79	3·65450	14·02710	3·838	4·563
80	3·01936	11·00774	3·646	4·371
81	2·47199	8·53575	3·453	4·178
82	2·00009	6·53566	3·268	3·993
83	1·60127	4·93439	3·082	3·807
84	1·26462	3·66977	2·902	3·627
85	·98636	2·68341	2·721	3·446
86	·75708	1·92633	2·544	3·269
87	·57242	1·35391	2·365	3·090
88	·42585	·92806	2·179	2·904
89	·31057	·61749	1·988	2·713
90	·22279	·39470	1·772	2·497
91	·15627	·23843	1·526	2·251
92	·10599	·13244	1·250	1·975
93	·06777	·06467	·954	1·679
94	·03750	·02717	·725	1·450
95	·01803	·00914	·507	1·232
96	·00742	·00172	·232	·957
97	·00172	·00000	·000	·725

TABLE VII.

Showing at 8 per Cent. the present value of £1 Annuity on a Widow's Life, according to the Rates of Mortality and Re-marriage shown by Tables III. and IV., such Annuity to be payable Half-Yearly in advance till Death, or to cease on death or Re-marriage, or to be reduced to One-Half from Re-marriage till Death.

Age.	Annuity to cease on Death.	Ditto to cease on Death or Re-marriage.	Ditto to be reduced to one-half on Re-marriage.	Age.	Annuity to cease on Death.	Ditto to cease on Death or Re-marriage.	Ditto to be reduced to one-half on Re-marriage.
13 to 14	11·818	8·017	9·917	45 to 46	10·314	9·617	9·965
14 „ 15	11·781	7·689	9·735	46 „ 47	10·219	9·556	9·888
15 „ 16	11·742	7·410	9·576	47 „ 48	10·120	9·490	9·805
16 „ 17	11·704	7·179	9·442	48 „ 49	10·015	9·428	9·721
17 „ 18	11·668	7·000	9·334	49 „ 50	9·903	9·371	9·637
18 „ 19	11·635	6·914	9·274	50 „ 51	9 786	9·323	9·555
19 „ 20	11·603	6·971	9·287	51 „ 52	9·664	9·275	9·469
20 „ 21	11·572	7·160	9·366	52 „ 53	9·534	9·216	9·375
21 „ 22	11·540	7·402	9·471	53 „ 54	9·399	9·149	9·274
22 „ 23	11·507	7·632	9·570	54 „ 55	9·257	9·071	9·164
23 „ 24	11·474	7·856	9·665	55 „ 56	9·110	8·979	9·045
24 „ 25	11·441	8·077	9·759	56 „ 57	8·958	8·868	8·913
25 „ 26	11·407	8·284	9·845	57 „ 58	8·802	8·744	8·773
26 „ 27	11·371	8·478	9·925	58 „ 59	8·641	8·608	8·624
27 „ 28	11·335	8·663	9·999	59 „ 60	8·474	8·459	8·467
28 „ 29	11·299	8·835	10·067	60 „ 61	8·301	8·298	8·299
29 „ 30	11·260	8·984	10·122	61 „ 62	8·122	8·122	8·122
30 „ 31	11·221	9·112	10·166	62 „ 63	7·935	7·935	7·935
31 „ 32	11·179	9·225	10·202	63 „ 64	7·746	7·746	7·746
32 „ 33	11·138	9·326	10·232	64 „ 65	7·551	7·551	7·551
33 „ 34	11·095	9·416	10·256	65 „ 66	7·353	7·353	7·353
34 „ 35	11·048	9·500	10·274	66 „ 67	7·153	7·153	7·153
35 „ 36	10·999	9·573	10·286	67 „ 68	6·950	6·950	6·950
36 „ 37	10·948	9·639	10·293	68 „ 69	6·744	6·744	6·744
37 „ 38	10·894	9·693	10·294	69 „ 70	6·535	6 535	6·535
38 „ 39	10·838	9·734	10·286	70 „ 71	6·327	6 327	6·327
39 „ 40	10·775	9·761	10·268	71 „ 72	6·116	6·116	6·116
40 „ 41	10·710	9·772	10·241	72 „ 73	5·904	5·904	5.904
41 „ 42	10·640	9·765	10·202	73 „ 74	5·693	5·693	5·693
42 „ 43	10 565	9·745	10·155	74 „ 75	5·483	5·483	5·483
43 „ 44	10·487	9·714	10·101	75 „ 76	5·275	5·275	5·275
44 „ 45	10·403	9·671	10·037	76 „ 77	5·069	5·069	5·069

TABLE VII.—*(Continued.)*

Age.	Annuity to cease on Death.	Ditto to cease on Death or Re-marriage.	Ditto to be reduced to one Half on Re-marriage.	Age.	Annuity to cease on Death.	Ditto to cease on Death or Re-marriage.	Ditto to be reduced to one Half on Re-marriage.
77 to 78	4·864	4·864	4·864	88 to 89	2·808	2·808	2·808
78 „ 79	4·662	4·662	4·662	89 „ 90	2·605	2·605	2·605
79 „ 80	4·467	4·467	4·467	90 „ 91	2·374	2·374	2·374
80 „ 81	4·275	4·275	4·275	91 „ 92	2·113	2·113	2·113
81 „ 82	4·085	4·085	4·085	92 „ 93	1·827	1·827	1·827
82 „ 83	3·900	3·900	3·900	93 „ 94	1·565	1·565	1·565
83 „ 84	3·717	3·717	3·717	94 „ 95	1·341	1·341	1·341
84 „ 85	3·537	3·537	3·537	95 „ 96	1·094	1·094	1·094
85 „ 86	3·357	3·357	3·357	96 „ 97	·841	·841	·841
86 „ 87	3·180	3·180	3·180	97 „ 98	·363	·363	·363
87 „ 88	2·997	2·997	2·997				

TABLE VIII.

Showing the present value at 8 *per Cent. of* £ 1 *to be received on Marriage of a Female of any given age not above* 60, *according to the rate of Marriage exhibited by Table IV.*

Age.	P	K	Value of £1 to be received on Marriage.	Age.	P	K	Value of £1 to be received on Marriage.
0		3806·51	·09450	11		3806·51	·27393
1		3806·51	·10898	12		3806·51	·29766
2		3806·51	·12247	13		3806·51	·32345
3		3806·51	·13624	14	104·10	3806·51	·35153
4		3806·51	·15016	15	189·14	3702·41	·37537
5		3806·51	·16458	16	256·53	3513·27	·39511
6		3806·51	·17977	17	305·09	3256·74	·41063
7		3806·51	·19581	18	403·77	2951·65	·42183
8		3806·51	·21317	19	464·76	2547·88	·42170
9		3806·51	·23189	20	441·68	2083·12	·40806
10		3806·51	·25208	21	344·59	1641·44	·38485

TABLE VIII.—*(Continued.)*

Age.	P	K	Value of £1 to be received on Marriage.	Age.	P	K	Value of £1 to be received on Marriage.
22	262·12	1296·85	·36163	42	3·5290	24·3471	·08667
23	213·39	1034·73	·34022	43	2·9162	20·8181	·08210
24	164·22	821·338	·31746	44	2·4074	17·9019	·07815
25	130·01	657·118	·29646	45	1·9881	15·4945	·07482
26	102·83	527·108	·27609	46	1·8130	13·5064	·07210
27	82·696	424·278	·25667	47	1·6270	11·6934	·06901
28	64·979	341·582	·23777	48	1·6261	10·0664	·06572
29	50·671	276·603	·22038	49	1·5942	8·44027	·06103
30	40·229	225·932	·20502	50	1·5581	6·84607	·05491
31	32·736	185·703	·19115	51	1·2908	5·28797	·04712
32	26·461	152·967	·17810	52	1·0722	3·99717	·03955
33	21·998	126·506	·16612	53	·87882	2·92497	·03212
34	18·191	104·508	·15449	54	·70824	2·04615	·02494
35	15·023	86·3170	·14336	55	·50230	1·33791	·01809
36	12·404	71·2940	·13278	56	·32298	·83561	·01252
37	10·147	58·8900	·12277	57	·22728	·51263	·00850
38	8·2601	48·7430	·11352	58	·15507	·28535	·00524
39	6·6444	40·4829	·10514	59	·09230	·13028	·00265
40	5·3112	33·8385	·09779	60	·03798	·03798	·00086
41	4·1802	28·5273	·09159	61	·00000	·00000	·00000

TABLE IX.

Showing the values of Annuities at 5 per Cent. according to the Rate of Mortality exhibited by Table III.

Age.	D	N	A	A + ¾
0	10000·00	148240·52	14·824	15·574
1	8919·05	139321·47	15·621	16·371
2	8182·31	131139·16	16·027	16·777
3	7565·49	123573·67	16·334	17·084
4	7060·43	116513·24	16·502	17·252
5	6625·50	109887·74	16·585	17·335
6	6239·11	103648·63	16·613	17·363

TABLE IX.—*(Continued.)*

Age.	D	N	A	A + ½
7	5891·55	97757·08	16·593	17·343
8	5566·33	92190·75	16·562	17·312
9	5263·23	86927·52	16·516	17·266
10	4980·06	81947·46	16·455	17·205
11	4713·68	77233·78	16·385	17·135
12	4461·94	72771·84	16·309	17·059
13	4223·48	68548·36	16·230	16·980
14	3997·11	64551·25	16·149	16·899
15	3782·72	60768·53	16·065	16·815
16	3579·22	57189·31	15·981	16·731
17	3385·23	53804·08	15·894	16·644
18	3199·92	50604·16	15·814	16·564
19	3023·41	47580·75	15·737	16·487
20	2856·07	44724·68	15·660	16·410
21	2697·09	42027·59	15·583	16·333
22	2546·44	39481·15	15·504	16·254
23	2404·02	37077·13	15·423	16·173
24	2269·02	34808·11	15·341	16·091
25	2140·94	32667·17	15·258	16·008
26	2019·87	30647·30	15·173	15·923
27	1905·47	28741·83	15·084	15·834
28	1796·88	26944·95	14·995	15·745
29	1694·31	25250·64	14·903	15·653
30	1597·20	23653·44	14·809	15·559
31	1505·50	22147·94	14·711	15·461
32	1418·70	20729·24	14·611	15·361
33	1336·55	19392·69	14·510	15·260
34	1259·01	18133·68	14·403	15·153
35	1185·82	16947·86	14·292	15·042
36	1116·75	15831·11	14·176	14·926
37	1051·40	14779·71	14·057	14·807
38	989·746	13789·96	13·933	14·683
39	931·578	12858·88	13·803	14·553
40	876·848	11981·53	13·664	14·414
41	825·082	11156·45	13·522	14·272
42	776·259	10380·19	13·372	14·122
43	730·214	9649·980	13·215	13·965
44	686·677	8963·303	13·053	13·803
45	645·631	8317·672	12·883	13·633
46	606·831	7710·841	12·707	13·457
47	570·262	7140·579	12·522	13·272
48	535·608	6604·971	12·332	13·082
49	502·961	6102·010	12·132	12·882
50	472·034	5629·976	11·927	12·677
51	442·746	5187·230	11·716	12·466
52	415·098	4772·132	11·496	12·246

TABLE IX.—*(Continued.)*

Age.	D	N	A	A + ¾
53	389·003	4383·129	11·268	12·018
54	364·166	4018·963	11·036	11·786
55	340·744	3678·219	10·795	11·545
56	318·466	3359·753	10·550	11·300
57	297·290	3062·463	10·301	11·051
58	277·172	2785·291	10·049	10·799
59	258·127	2527·164	9·790	10·540
60	240·053	2287·111	9·528	10·278
61	222·963	2064·148	9·258	10 008
62	206·761	1857·387	8·983	9·733
63	191·412	1665·975	8·704	9·454
64	176·792	1489·183	8·423	9·173
65	162·962	1326·221	8·138	8·888
66	149·769	1176·452	7·855	8·605
67	137·273	1039·179	7·570	8·320
68	125·409	913·7700	7·286	8 036
69	114·226	799·5440	7·000	7·750
70	103·627	695·9175	6·716	7·466
71	93·6216	602·2959	6·433	7·183
72	84·2149	518·0810	6·152	6·902
73	74·5154	443·5656	5·953	6·703
74	67·0840	376·4816	5·612	6·362
75	59·3572	317·1244	5·343	6·093
76	52·1652	264·9592	5·079	5·829
77	45·5235	219·4357	4·820	5·570
78	39·4184	180·0173	4·567	5·317
79	33·8338	146·1835	4·321	5·071
80	28·7522	117·4313	4·084	4·834
81	24·2124	93·21890	3·850	4·600
82	20·1495	73·06494	3·626	4·376
83	16·5930	56·47640	3·404	4·154
84	13·4789	42·99750	3·190	3·940
85	10·8135	32·18397	2·976	3·726
86	8·53696	23·64701	2·770	3·520
87	6·63914	17·00787	2·562	3·312
88	5·08025	11·92762	2·348	3·098
89	3·81083	8·11679	2·130	2·880
90	2·81183	5·30496	1·887	2 637
91	2·02909	3·27587	1·614	2·364
92	1·41565	1·86022	1·314	2·064
93	·930925	·929296	·998	1·748
94	·529919	·399377	·754	1·504
95	·262048	·137329	·524	1·274
96	·110920	·026409	·238	·988
97	·026409	·000000	·000	·750

TABLE X.

Showing the values of Annuities to cease on Death or Marriage, according to the Rate of Casualties exhibited by Table IV., at 5 per cent.

Age.	D	N	A	A + ¾
0	40280·0	484006·1	12·016	12·766
1	35925·7	448080·4	12·472	13·222
2	32882·5	415197·9	12·627	13·377
3	30403·6	384794·3	12·656	13·406
4	28374·2	356420·1	12·561	13·311
5	26626·6	329793·5	12·386	13·136
6	25073·6	304719·9	12·153	12·903
7	23677·1	281042·8	11·869	12·619
8	22370·2	258672·6	11·563	12·313
9	21152·2	237520·4	11·229	11·979
10	20014·2	217506·2	10·868	11·618
11	18943·6	198562·6	10·482	11·232
12	17931·8	180630·8	10·073	10·823
13	16973·5	163657·3	9·642	10·392
14	16063·7	147593·6	9·188	9·938
15	15050·1	132543·5	8·807	9·557
16	13955·5	118588·0	8·498	9·248
17	12803·1	105784 9	8·263	9·013
18	11618·4	94166·48	8·105	8·855
19	10318·8	83847·68	8·126	8·876
20	8967·71	74879·97	8·350	9·100
21	7706·49	67173·48	8·716	9·466
22	6664·70	60508·78	9·079	9·829
23	5813·73	54695·05	9·408	10·158
24	5086·97	49608·08	9·752	10·502
25	4482·70	45125·38	10·067	10·817
26	3971·40	41153·98	10·363	11·113
27	3536·67	37617·31	10·636	11·386
28	3161·63	34455·68	10·898	11·648
29	2841·01	31614·67	11·128	11·878
30	2565·74	29048·93	11·322	12·072
31	2326·56	26722·37	11·486	12·236
32	2115·66	24606·71	11·631	12·381
33	1929·37	22677·34	11·753	12·503
34	1762·88	20914·46	11·864	12·614
35	1613·85	19300·61	11·959	12·709
36	1480·37	17820·24	12·038	12·788
37	1360·21	16460·03	12·101	12·851
38	1252·37	15207 66	12·143	12·893

TABLE X.—(*Continued.*)

Age.	D	N	A	A + ¾
39	1155·15	14052·51	12·165	12·915
40	1067·76	12984·75	12·161	12·911
41	988·638	11996·11	12·134	12·884
42	917·081	11079·03	12·081	12·831
43	851·446	10227·58	12·012	12·762
44	791·151	9436·433	11·927	12·677
45	735·670	8700·763	11·827	12·577
46	684·527	8016·236	11·711	12·461
47	636·899	7379·337	11·586	12·336
48	592·139	6787·198	11·462	12·212
49	549·933	6237·265	11·342	12·092
50	509·968	5727·297	11·231	11·981
51	472·063	5255·234	11·132	11·882
52	437·324	4817·910	11·017	11·767
53	405·275	4412·635	10·888	11·638
54	375·645	4036·990	10·747	11·497
55	348·328	3688·662	10·590	11·340
56	323·282	3365·380	10·410	11·160
57	300·264	3065·116	10·208	10·958
58	278·824	2786·292	9·993	10·743
59	258·914	2527·378	9·761	10·511
60	240·267	2287·111	9·519	10·269
61	222·963	2064·148	9·258	10·008
62	206·761	1857·387	8·983	9·733
63	191·412	1665·975	8·704	9·454
64	176·792	1489·183	8·423	9·173
65	162·962	1326·221	8·138	8·888
66	149·769	1176·452	7·855	8·605
67	137·273	1039·179	7·570	8·320
68	125·409	913·7700	7·286	8·036
69	114·226	799·5440	7·000	7·750
70	103·627	695·9175	6·716	7·466
71	93·6216	602·2959	6·433	7·183
72	84·2149	518·0810	6·152	6·902
73	74·5154	443·5656	5·953	6·703
74	67·0840	376·4816	5·612	6·362
75	59·3572	317·1244	5·343	6·093
76	52·1652	264·9592	5·079	5·829
77	45·5235	219·4357	4·820	5·570
78	39·4184	180·0173	4·567	5·317
79	33·8338	146·1835	4·321	5·071
80	28·7522	117·4313	4·084	4·834
81	24·2124	93·21890	3·850	4·600
82	20·1495	73·06940	3·626	4·376

TABLE X.—(*Continued.*)

Age.	D	N	A	A + $\frac{3}{4}$
83	16·5930	56·47640	3·404	4·154
84	13·4789	42·99750	3·190	3·940
85	10·8135	32·18397	2·976	3·726
86	8·53696	23·64701	2·770	3·520
87	6·63914	17·00787	2·562	3·312
88	5·08025	11·92762	2·348	3·098
89	3·81083	8·116790	2·130	2·880
90	2·81183	5·304960	1·887	2·637
91	2·02909	3·275870	1·614	2·364
92	1·41565	1·860221	1·314	2·064
93	·930925	·929296	0·998	1·748
94	·529919	·399377	·754	1·504
95	·262048	·137329	·524	1·274
96	·110920	·026409	·238	·988
97	·026409	·000000	·000	·750

TABLE XI.

Showing the present value at 5 per Cent. of £1 Annuity, payable by Half-yearly Instalments in advance till Death, or to cease on Death or Re-marriage, or to be reduced to one-half from Re-marriage till Death.

Age.	Annuity to cease on Death.	Ditto to cease on Death or Marriage.	Ditto to be reduced to one-half on Marriage.	Age.	Annuity to cease on Death.	Ditto to cease on Death or Marriage.	Ditto to be reduced to one-half on Marriage.
13 to 14	16·940	10·165	13·553	21 to 22	16·294	9·648	12·971
14 „ 15	16·857	9·748	13·302	22 „ 23	16·213	9·993	13·103
15 „ 16	16·773	9·402	13·088	23 „ 24	16·132	10·330	13·231
16 „ 17	16·688	9·131	12·909	24 „ 25	16·050	10·660	13·355
17 „ 18	16·604	8·934	12·769	25 „ 26	15·965	10·965	13·465
18 „ 19	16·525	8·865	12·695	26 „ 27	15·879	11·250	13·564
19 „ 20	16·449	8·988	12·719	27 „ 28	15·789	11·517	13·653
20 „ 21	16·371	9·283	12·827	28 „ 29	15·699	11·763	13·731

TABLE XI.—*(Continued.)*

Age.	Annuity to cease on Death.	Ditto to cease on Death or Marriage.	Ditto to be reduced to one-half on Marriage.	Age.	Annuity to cease on Death.	Ditto to cease on Death or Marriage.	Ditto to be reduced to one-half on Marriage.
29 to 30	15·606	11·975	13·791	64 to 65	9·031	9·031	9·031
30 „ 31	15·510	12·154	13·832	65 „ 66	8·746	8·746	8·746
31 „ 32	15·411	12·308	13·859	66 „ 67	8·463	8·463	8·463
32 „ 33	15·311	12·442	13·877	67 „ 68	8·178	8·178	8·178
33 „ 34	15·206	12·559	13·882	68 „ 69	7·893	7·893	7·893
34 „ 35	15·098	12·661	13·880	69 „ 70	7·608	7·608	7·608
35 „ 36	14·984	12·749	13·866	70 „ 71	7·324	7·324	7·324
36 „ 37	14·866	12·819	13·843	71 „ 72	7·043	7·043	7·043
37 „ 38	14·745	12·872	13·808	72 „ 73	6·802	6·802	6·802
38 „ 39	14·618	12·904	13·761	73 „ 74	6·533	6·533	6·533
39 „ 40	14·484	12·913	13·699	74 „ 75	6·227	6·227	6·227
40 „ 41	14·343	12·898	13·621	75 „ 76	5·961	5·961	5·961
41 „ 42	14·197	12·857	13·527	76 „ 77	5·700	5·700	5·700
42 „ 43	14·043	12·752	13·397	77 „ 78	5·443	5·443	5·443
43 „ 44	13·884	12·719	13·302	78 „ 79	5·194	5·194	5·194
44 „ 45	13·718	12·627	13·172	79 „ 80	4·953	4·953	4·953
45 „ 46	13·545	12·519	13·032	80 „ 81	4·717	4·717	4·717
46 „ 47	13·365	12·399	12·882	81 „ 82	4·488	4·488	4·488
47 „ 48	13·177	12·274	12·726	82 „ 83	4·265	4·265	4·265
48 „ 49	12·982	12·152	12·567	83 „ 84	4·047	4·047	4·047
49 „ 50	12·779	12·036	12·407	84 „ 85	3·833	3·833	3·833
50 „ 51	12·572	11·932	12·252	85 „ 86	3·623	3·623	3·623
51 „ 52	12·356	11·824	12·090	86 „ 87	3·416	3·416	3·416
52 „ 53	12·132	11·703	11·918	87 „ 88	3·205	3·205	3·205
53 „ 54	11·902	11·567	11·734	88 „ 89	2·989	2·989	2·989
54 „ 55	11·665	11·419	11·542	89 „ 90	2·758	2·758	2·758
55 „ 56	11·423	11·250	11·337	90 „ 91	2·501	2·501	2·501
56 „ 57	11·175	11·059	11·117	91 „ 92	2·214	2·214	2·214
57 „ 58	10·925	10·850	10·887	92 „ 93	1·906	1·906	1·906
58 „ 59	10·670	10·627	10·649	93 „ 94	1·626	1·626	1·626
59 „ 60	10·409	10·390	10·399	94 „ 95	1·389	1·389	1·389
60 „ 61	10·143	10·139	10·141	95 „ 96	1·131	1·131	1·131
61 „ 62	9·870	9·870	9·870	96 „ 97	·869	·869	·869
62 „ 63	9·594	9·594	9·594	97 „ 98	·375	·375	·375
63 „ 64	9·313	9·313	9·313				

TABLE XII.

Being a preparatory Table for determining the present values of the benefits held out to Fatherless Children at 8 per Cent., according to the Rates of Mortality and Marriage exhibited by Tables III. and IV.

	Age.	£30 per Annum for life.	£30 per Annum after 5.	£20 per Annum after 8.	£20 per Annum after 11.	Sum of the last four Columns.	£100 per Annum after 21.	Difference of last 2 Columns.
Sons' Benefits.	0	321·48	205·99	106·33	82·31	716·11	172·50	543·61
	1	337·41	237·55	122·63	94·92	792·51	198·93	593·58
	2	345·69	266·34	137·49	106·42	855·94	223·04	632·90
	3	352·11	296·29	152·95	118·38	919·73	248·11	671·62
	4	355·83	326·55	168·57	130·48	981·43	273·46	707·97
	5	357·93	357·93	184·77	143·02	1043·65	299·73	743·92
	6	358·95	358·95	201.81	156.21	1075·92	327·39	748·53
	7	359·07	359·07	219·83	170·15	1108·12	356·61	751·51
	8	358·98	358·98	239·32	185·24	1142·52	388·23	754·29
	9	358·59	358·59	239·06	201·51	1157·75	422·32	735·43
	10	357·90	357·90	238·60	219·05	1173·45	459·08	714·37
	11	357·06	357·06	238·04	238·04	1190·20	498·88	691·32
	12	356·07	356·07	237·38	237·38	1186·90	542·09	644·81
	13	355·05	355·05	236·70	236·70	1183·50	589·06	594·44
	14	354·00	354·00	236·00	236·00	1180·00	640·20	539·80
	15	352·86	352·86	235·24	235·24	1176·20	695·81	480·39
	16	351·69	351·69	234·46	234·46	1172·30	755·51	416·79
	17	350·55	350·55	233·70	233·70	1168·50	822·58	345·92
	18	349·53	349·53	233·02	233·02	1165·10	895·07	270·03
	19	348·57	347·57	232·38	232·38	1161·90	974·40	187·50
	20	347·61	347·61	231·74	231·74	1158·70	1060·96	97·74

	Age.	£30 per Annum till Death or Marriage.	£30 per Annum till ditto after 5.	£20 per Annum till ditto after 8.	£20 per Annum till ditto after 11.	£300 on Marriage.	Sum.
Daughters' Benefits.	0	288·96	173·60	84·80	60·83	28·35	636·54
	1	299·88	200·20	97·80	70·16	32·69	700·73
	2	304·32	224·98	109·90	78·84	36·74	754·78
	3	306·09	250·27	122·26	87·70	40·87	807·19
	4	305·13	275·84	134·75	96·66	45·05	857·43
	5	302·34	302·34	147·69	105·94	49·37	907·68

TABLE XII.—(*Continued.*)

	Age.	£30 per Annum till Death or Marriage.	£30 per Annum till ditto after 5.	£20 per Annum till ditto after 8.	£20 per Annum till ditto after 11.	£300 on Marriage.	Sum.	
Daughters' Benefits.	6	298·23	298·23	161·33	115·72	53·93	927·44	
	7	292·92	292·92	175·73	126·05	58·74	946·36	
	8	286·95	286·95	191·30	137·23	63·95	966·38	
	9	280·23	280·23	186·82	149·28	69·57	966·13	
	10	272·76	272·76	181·84	162·27	75·62	965·25	
	11	264·51	264·51	176·34	176·34	82·18	963·88	
	12	255·54	255·54	170·36	170·36	89·30	941·10	
	13	245·79	245·79	163·86	163·86	97·04	916·34	
	14	235·23	235·23	156·82	156·82	105·46	889·56	
	15	226·14	226·14	150·76	150·76	112·61	866·41	
	16	218·46	218·46	145·64	145·64	118·53	846·73	
	17	212·28	212·28	141·52	141·52	123·19	830·79	
	18	207·72	207·72	138·48	138·48	126·55	818·95	
	19	207·12	207·12	138·08	138·08	126·51	816·91	
	20	211·14	211·14	140·76	140·76	122·42	826·22	

TABLE XIII.

Showing the present value of the undermentioned Pensions to Children, computed at 8 *per Cent., according to the Rate of Mortality exhibited by Table III., and the Rate of Marriage shown by Table IV. The said Pensions payable by Half-yearly Instalments in advance, being* £30 *per annum to the age of* 5 *years,* £60 *per annum from* 5 *to* 8, £80 *per annum from* 8 *to* 11, *and* £100 *per annum from* 11 *till* 21, *for Sons, and from* 11 *till Death or Marriage for Daughters with a Marriage Portion of* £300 *for the latter sex.*

Age.	Value of Sons' Benefits.	Value of Daughters' Benefits.	Age.	Value of Sons' Benefits.	Value of Daughters' Benefits.
0 to 1	568·59	668·63	5 to 6	746·23	917·56
1 „ 2	613·24	727·76	6 „ 7	750·02	936·90
2 „ 3	652·26	780·98	7 „ 8	752·90	956·37
3 „ 4	689·80	832·31	8 „ 9	744·86	966·25
4 „ 5	725·94	882·56	9 „ 10	724·90	965·69

TABLE XIII.—*(Continued.)*

Age.	Value of Sons' Benefits.	Value of Daughters' Benefits.	Age.	Value of Daughters' Pensions, &c., Continued.
10 to 11	702·84	964·57	43 to 44	995·39
11 „ 12	668·07	952·49	44 „ 45	990·05
12 „ 13	619·62	928·72	45 „ 46	983·79
13 „ 14	567·12	902·95	46 „ 47	976 71
14 „ 15	510·10	877·98	47 „ 48	969·26
15 „ 16	448·59	856·57	48 „ 49	961·77
16 „ 17	381·35	838·76	49 „ 50	954·44
17 „ 18	307·98	824·87	50 „ 51	947·60
18 „ 19	228·76	817·93	51 „ 52	940·51
19 „ 20	142·62	821·57	52 „ 53	932·40
20 „ 21	48·87	834·89	53 „ 54	923·46
21 „ 22		852·17	54 „ 55	913·56
22 „ 23		868·43	55 „ 56	902·44
23 „ 24		884·31	56 „ 57	890·01
24 „ 25		899·79	57 „ 58	876·46
25 „ 26		914·23	58 „ 59	861·93
26 „ 27		927·77	59 „ 60	846·48
27 „ 28		940·32	60 „ 61	829·93
28 „ 29		952·02	61 „ 62	812·20
29 „ 30		962·21	62 „ 63	793·50
30 „ 31		970·63	63 „ 64	774·60
31 „ 32		977·89	64 „ 65	755·10
32 „ 33		984·23	65 „ 66	735·30
33 „ 34		989·80	66 „ 67	715·30
34 „ 35		994·63	67 „ 68	695·00
35 „ 36		998·77	68 „ 69	674·40
36 „ 37		1002·18	69 „ 70	653·50
37 „ 38		1004·74	70 „ 71	632·70
38 „ 39		1006·25	71 „ 72	611·60
39 „ 40		1006·54	72 „ 73	590·40
40 „ 41		1005·56	73 „ 74	569·30
41 „ 42		1003·29	74 „ 75	548·30
42 „ 43		999·82	same as Table VIII.	

TABLE XIV.

Showing the present value of the undermentioned Reversionary Pensions to the Sons of the living Members, in the event of their becoming Fatherless under the age of 21 *years, viz.,* £30 *per annum under the age of* 5 *years,* £60 *from* 5 *to* 8; £80 *per annum from* 8 *to* 11, *and* £100 *per annum from* 11 *to* 21, *computed at* 8 *per cent. on the supposition that the average age of the Fathers exceeds that of the Sons by* 35 *years.*

Son's Age.	D	P	K	Value.	Son's Age.	Value.
0	27135·0	268510	2818060	103·85	0 to 1	107·13
1	23089·7	254601	2549550	110·42	1 „ 2	112·01
2	20201·7	242477	2294949	113·60	2 „ 3	114·43
3	17807·3	234650	2052472	115·26	3 „ 4	115·04
4	15832·6	224669	1817822	114·82	4 „ 5	113·71
5	14148·8	211055	1593153	112·60	5 „ 6	110.79
6	12682·7	197057	1382098	108·98	6 „ 7	106·51
7	11391·6	184002	1185041	104·03	7 „ 8	100·94
8	10229·4	167267	1001039	97·86	8 „ 9	94·30
9	9188·26	149371	833771·9	90·74	9 „ 10	86·83
10	8254·20	133548	684400·9	82·91	10 „ 11	78·61
11	7413·26	116811	550852·9	74·31	11 „ 12	69·77
12	6654·54	99715·5	434041·9	65·23	12 „ 13	60·62
13	5969·45	83977·3	334326·4	56·01	13 „ 14	51·40
14	5350·42	70389·4	250349·1	46·79	14 „ 15	42·18
15	4790·34	58387·3	179959·7	37·57	15 „ 16	32·98
16	4281·79	46217·6	121572·4	28·39	16 „ 17	24·05
17	3820·92	34312·1	75354·8	19·72	17 „ 18	15·89
18	3404·56	23418·2	41042·7	12·05	18 „ 19	8·93
19	3029·22	13405·8	17624·5	5·82	19 „ 20	3·70
20	2691·90	4218·7	4218·7	1·57	20 „ 21	·78

TABLE XV.

Showing the present value of the undermentioned Reversionary Benefits to the Daughters of the living Members, in the event of their becoming Fatherless while they are unmarried, viz., £30 per annum till the age of 5 years; £60 per annum from 5 to 8; £80 per annum from 8 to 11; and £100 per annum from 11 to Death or Marriage, with a portion of £300 on Marriage, computed at 8 per Cent., according to the rates of Mortality exhibited by Tables I. and III. and the rate of Marriage shown by Table IV., and on the supposition that the Pensions shall be payable by Half-yearly Instalments in advance, and that the average age of the Fathers exceeds that of the Daughters by 35 years.

Daughter's age.	D	P	K	Value.	Daughter's age.	Value.
0	109300	1271916	16953502	155·11	0 to 1	161·86
1	93004·7	1212858	15681586	168·61	1 „ 2	173·41
2	81185·3	1166705	14468728	178·22	2 „ 3	182·05
3	71562·5	1137800	13302023	185·88	3 „ 4	188·53
4	63627·5	1097692	12164223	191·18	4 „ 5	192·90
5	56861·2	1042985	11066531	194·62	5 „ 6	195·64
6	50969·0	989212	10023546	196·66	6 „ 7	197·00
7	45780·9	939302	9034334	197·34	7 „ 8	197·13
8	41110·5	872089	8095032	196·91	8 „ 9	196·25
9	36926·3	801483	7222943	195·60	9 „ 10	194·59
10	33172·5	736585	6421460	193·58	10 „ 11	192·20
11	29792·8	669337	5684875	190·81	11 „ 12	189·17
12	26743·6	600623	5015538	187·54	12 „ 13	185·79
13	23990·2	537333	4414915	184·03	13 „ 14	182·18
14	21502·4	484476	3877582	180·33	14 „ 15	179·18
15	19059·0	439171	3393106	178·03	15 „ 16	177·48
16	16694·8	390423	2953935	176·94	16 „ 17	177·17
17	14450·9	340644	2563512	177·39	17 „ 18	178·60
18	12361·4	294911	2222868	179·82	18 „ 19	183·15
19	10338·6	253135	1927957	186·47	19 „ 20	192·31
20	8452·25	216185	1674822	198·15	20 „ 21	205·93
21	6825·21	184914	1458637	213·71	21 „ 22	221·82
22	5539·72	159091	1273723	229·93	22 „ 23	238·00
23	4529·48	137599	1114632	246·08	23 „ 24	252·73
24	3709·68	119505	977032·9	263·37	24 „ 25	272·02

TABLE XV.—*(Continued.)*

Daughter's Age.	D	P	K	Value.	Daughter's Age.	Value.
25	3055·28	10429·1	857527·9	280·67	25 to 26	289·44
26	2525·72	91394·0	753236·9	298·22	26 „ 27	307·06
27	2095·09	79182·7	661842·9	315·90	27 „ 28	325·17
28	1742·19	70011·9	582660·2	334·44	28 „ 29	343·60
29	1453·27	61207·7	512648·3	352·76	29 „ 30	361·95
30	1216·38	54314·3	451440·6	371·14	30 „ 31	380·28
31	1019·78	48312·4	397126·3	389·42	31 „ 32	398·67
32	855·105	43047·4	348813·9	407·92	32 „ 33	417·21
33	716·945	38418·6	305766·5	426·49	33 „ 34	435·93
34	600·278	34325·2	267347·9	445·38	34 „ 35	454·93
35	501·690	30709·4	233022·7	464·48	35 „ 36	474·03
36	418·359	27503·2	202313·3	483·59	36 „ 37	493·23
37	347·772	24658·0	174810·1	502·66	37 „ 38	511·94
38	288·074	22123·7	150152·1	521·23	38 „ 39	530·15
39	237·497	19866·0	128028·4	539·07	39 „ 40	547·29
40	194·709	17849·2	108162·4	555·51	40 „ 41	562·80
41	158·420	15445·2	90313·24	570·09	41 „ 42	576·95
42	128·243	13166·7	74868·04	583·80	42 „ 43	590·73
43	103·238	11024·5	61701·34	597·66	43 „ 44	605·11
44	82·7281	9472·97	50676·84	612·57	44 „ 45	619·93
45	65·6861	8250·65	41203·87	627·28	45 „ 46	633·95
46	51·4399	7057·52	32953·22	640·62	46 „ 47	646·83
47	39·6541	6015·90	25895·70	653·04	47 „ 48	658·51
48	29·9389	5203·26	19879·80	664·01	48 „ 49	667·27
49	21·8880	4066·27	14676·54	670·53	49 „ 50	673·48
50	15·6856	3106·21	10610·27	676·43	50 „ 51	679·16
51	11·0047	2301·95	7504·058	681·89	51 „ 52	683·75
52	7·58757	1696·19	5202·108	685·61	52 „ 53	685·73
53	5·11175	1133·04	3505·918	685·85	53 „ 54	687·72
54	3·44094	769·747	2372·878	689·60	54 „ 55	693·07
55	2·30155	514·346	1603·131	696·54	55 „ 56	703·02
56	1·53461	381·519	1088·785	709·49	56 „ 57	716·26
57	·978181	271·328	707·266	723·04	57 „ 58	731·75
58	·588736	210·804	435·938	740·46	58 „ 59	746·74
59	·298974	133·458	225·134	753·02	59 „ 60	765·36
60	·119883	70·8393	91·6760	777·69	60 „ 61	774·14
61	·027040	20·8367	20·8367	770·59	61 „ 62	786·79

TABLE XVI.

For determining the present values of Annuities on the Joint Lives of the Members and their Wives, and of Reversionary Pensions on the Lives of the Wives after the Deaths of their respective Husbands, such Pensions being payable by Half-yearly Instalments in advance, and reducible to one-half on Re-marriage. Computed at 8 per Cent., according to the Rates of Mortality exhibited by Tables I., II. and III., and the Rate of Re-marriage shown by Table IV., on the supposition that the Husband's age exceeds the Wife's age by 7 years.

Ages. H	Ages. W	D	N	P	K	AB	Pension.
20	13	2429812	22353127	272333	3822213	9.200	1·573
21	14	2210315	20142812	270618	3549880	9·113	1·606
22	15	2006951	18135861	259639	3279262	9·037	1·634
23	16	1819581	16316280	236362	3019623	8·967	1·660
24	17	1649946	14666334	220116	2783261	8·889	1·687
25	18	1492909	13173425	203697	2563145	8·824	1·717
26	19	1350332	11823093	187463	2359448	8·756	1·747
27	20	1220991	10602102	173572	2171985	8·683	1·779
28	21	1103175	9498927	161129	1998413	8·611	1·812
29	22	996390	8502537	151430	1837284	8·533	1·844
30	23	898993	7603544	140374	1685854	8·458	1·875
31	24	810814	6792730	129963	1545480	8.378	1·906
32	25	731010	6061720	121948	1415517	8·292	1·936
33	26	658641	5403079	112646	1293569	8·203	1·964
34	27	592594	4810485	103974	1180923	8·118	1·993
35	28	532659	4277826	95846·5	1076949	8·031	2·022
36	29	478313	3799513	88134·5	981102·4	7·944	2·051
37	30	429071	3370442	80712·0	892967·9	7·855	2·081
38	31	384489	2985953	75172·4	812255·9	7·766	2·113
39	32	344067	2641886	68842·3	737083·5	7·678	2·142
40	33	307539	2334347	62926·4	668241·2	7·590	2·173
41	34	274709	2059638	58260·1	605314·8	7·498	2·203
42	35	245009	1814629	53732·6	547054·7	7·406	2·233
43	36	218296	1596333	49111·2	493322·1	7·313	2·260
44	37	194231	1402102	44694·1	444210·9	7·219	2·287
45	38	172675	1229427	40556·9	399516·8	7·120	2·314
46	39	153286	1076141	36903·2	358959 9	7·020	2·342
47	40	135948	940193·1	33460·9	322056·7	6·916	2·369
48	41	120378	819815·1	30255·4	288595·8	6·810	2·397
49	42	106413	713402·1	27674·3	258340·4	6·704	2·428
50	43	93930·5	619471·6	25579·9	230666·1	6·595	2·456
51	44	82698·4	536773·2	23325·6	205086·2	6 491	2·480
52	45	72685·6	464087·6	20954·5	181760·6	6·385	2·501

TABLE XVI.—*(Continued.)*

Ages. H	Ages. W	D	N	P	K	AB	Pension.
53	46	63749·9	400337·7	18804·8	160806·1	6·280	2·522
54	47	55826·5	344511·2	16852·8	142001·3	6·171	2·544
55	48	48808·0	295703·1	15092·6	125148·5	6·059	2·564
56	49	42598·0	253105·1	13496·6	110055·9	5.942	2·584
57	50	37081·1	216024·0	12071·8	96559·28	5.826	2·604
58	51	32213·9	183810·1	10767·4	84487·48	5·706	2·623
59	52	27902·9	155907·2	9587·03	73720·08	5·587	2·642
60	53	24001·3	131905·9	8521·27	64133·05	5·496	2·672
61	54	20783·8	111122·1	7558·62	55611·78	5·347	2·676
62	55	17866·3	93255·78	6608·87	48053·16	5·220	2·690
63	56	15321·8	77933·98	5834·10	41444·29	5·086	2·705
64	57	13098·6	64835·38	5075·10	35610·19	4·950	2·719
65	58	11166·7	53668·68	4458·83	30535·09	4·806	2·734
66	59	9484·96	44183·72	3907·45	26076·26	4·658	2·749
67	60	8024·30	36159·42	3413·81	22168·81	4·506	2·763
68	61	6758·73	29400·69	2973·51	18755·00	4·350	2·775
69	62	5665·08	23735·61	2581·30	15781·49	4·190	2·786
70	63	4722·72	19012·89	2235·04	13200·19	4·026	2·795
71	64	3913·27	15099·62	1928·82	10965·15	3·859	2·802
72	65	3220·43	11879·19	1659·25	9036·334	3·689	2·806
73	66	2629·66	9249·532	1422·63	7377·084	3·517	2·805
74	67	2128·12	7121·412	1215·15	5954·454	3·346	2·798
75	68	1704·38	5417·032	1033·65	4739·304	3·178	2·781
76	69	1348·35	4068·682	841·037	3705 654	3·018	2·748
77	70	1053·97	3014·712	672·111	2864·617	2·860	2·718
78	71	815·312	2199·400	522·812	2192·506	2·698	2·689
79	72	624·432	1574·968	416·290	1669.694	2·522	2·674
80	73	471·032	1103·935	332·475	1253·404	2·344	2·661
81	74	348·083	755·8523	260 031	920·9293	2·171	2·646
82	75	252·042	503·8103	201·148	660·8983	1·999	2·622
83	76	177·427	326·3833	156·913	459·7503	1·840	2·591
84	77	120·264	206·1193	109·433	302·8373	1·714	2·518
85	78	79·3936	126·7257	73·9448	193·4043	1·596	2·436
86	79	50·9191	75·8066	48·1632	119·4595	1·489	2·346
87	80	31·7006	44·1060	30·7998	71·2963	1·391	2·249
88	81	19·0978	25·0082	17·6575	40·4965	1·309	2·120
89	82	11·3083	13·7049	10·0483	22·8390	1·212	2·021
90	83	6·54618	7·15876	5·59827	12·7907	1·094	1·954
91	84	3·70679	3·45197	3·33706	7·19246	·931	1·940
92	85	1·95838	1·49359	1·88991	3·85540	·763	1·969
93	86	·95962	·65684	1·15035	1·96549	·684	2·048
94	87	·38946	·14451	·550765	·815144	·371	2·093
95	88	·12287	·02164	·216366	·264379	·176	2·152
96	89	·02164	·00000	·048013	·048013	·000	2·219

TABLE XVII.

For determining the present values of Annuities on the joint lives of Members and their Wives, and of Reversionary Pensions on the Lives of the Wives after the Deaths of their respective Husbands. Such Pensions to be payable by Half-yearly Instalments in advance and reducible to one-half on Re-marriage. Computed at 5 per Cent., according to the Rates of Mortality exhibited by Tables I., II. and III., and the Rate of Marriage shown by Table IV., on the supposition that the Husband's age exceeds the Wife's age by 7 years.

Ages. H	W	D	N	P	K	AB	Pension.
20	13	426837	5282658	66349·0	1307025·4	12·376	3·062
21	14	399362	4883296	67790·7	1240676·4	12·228	3·107
22	15	372988	4510308	66966·7	1172885·7	12·093	3·145
23	16	347827	4162481	63347·9	1105919·0	11·967	3·180
24	17	324215	3838266	60072·5	1042571·1	11·839	3·216
25	18	301922	3536344	57216·5	982498·6	11·713	3·254
26	19	280890	3255454	54187·3	925282·1	11·590	3·294
27	20	261243	2994211	51604·7	871094·8	11·461	3·334
28	21	242778	2751433	49274·9	819490·1	11·333	3·375
29	22	225543	2525890	47618·8	770215·2	11·119	3·415
30	23	209310	2316580	45396·5	722596·4	11·068	3·452
31	24	194174	2122406	43215·0	677199 9	10·930	3 488
32	25	180064	1942342	41684·7	633984·9	10·787	3·521
33	26	166873	1775469	39575·0	592300·2	10·640	3·549
34	27	154429	1621040	37538·5	552725·2	10·497	3·579
35	28	142776	1478264	35554·4	515186·7	10·354	3·608
36	29	131872	1346392	33591·2	479632·3	10·210	3·637
37	30	121676	1224716	31670·7	446041·1	10·065	3·666
38	31	112148	1112568	30222 0	414370·4	9·921	3·695
39	32	103225	1009343	28421·3	384148·4	9·778	3·721
40	33	94902·5	914440·1	26668·3	355727·1	9·636	3·749
41	34	87193·6	827246·5	25348·0	329058·8	9·487	3·774
42	35	79988·9	747257·6	24049·1	303710 8	9 342	3·797
43	36	73303·9	673953·7	22504·0	279661·7	9·194	3·815
44	37	67086·3	606867·4	21009·8	257157·7	9·046	3·833
45	38	61345·0	545522·4	19603·3	236147·9	8·893	3·850
46	39	56012·8	489509·6	18254·2	216544 6	8·739	3·866
47	40	51096·5	438413·1	16972·0	198290 4	8·580	3·887
48	41	46537·4	391875·7	15735·6	181318·4	8·421	3·896
49	42	42314·1	349561·6	14730·0	165582·8	8·261	3·913
50	43	38417·6	311144·0	13979·2	150852·8	8·099	3·927
51	44	34790·0	276354·0	13066·1	136873·6	7·943	3·934
52	45	31451·4	244902·6	12031·3	123807·5	7·787	3·936
53	46	28373·0	216529·6	11062·6	111776·2	7·632	3·940
54	47	25556·5	190973·1	10159·8	100713·6	7·473	3·941

TABLE XVII.—*(Continued.)*

Ages. H	Ages. W	D	N	P	K	AB	Pension.
55	48	22981·9	167991·2	9321·59	90553·83	7·310	3·940
56	49	20630·9	147360·3	8538·62	81232·24	7·143	3·937
57	50	18472·1	128888·2	7823·90	72693·62	6·977	3·935
58	51	16506·0	112382·2	7147·29	64869·72	6·809	3·930
59	52	14705·6	97676·55	6517·16	57722·43	6·642	3·925
60	53	13070·8	84605·75	5930·08	51205·27	6·473	3·918
61	54	11588·5	73017·25	5385·80	45275·19	6·301	3·907
62	55	10246·4	62770·85	4820·17	39889·39	6·126	3·893
63	56	9038·19	53732·66	4355·30	35069·22	5·945	3·880
64	57	7947·48	45785·18	3877·21	30713·92	5·761	3·865
65	58	6968·89	38816·29	3486·35	26836·71	5·570	3·851
66	59	6088·49	32727·80	3125·66	23350·36	5·375	3·835
67	60	5298·05	27429·75	2794·83	20224·70	5·177	3·817
68	61	4589·96	22839·79	2489·88	17429·87	4·975	3·797
69	62	3957·16	18882·63	2211·96	14939·99	4·772	3·775
70	63	3393·16	15489·47	1958·93	12728·03	4·565	3·751
71	64	2891·92	12597·55	1729·73	10769·10	4·356	3·724
72	65	2447·90	10149·65	1522·12	9039·366	4·146	3·693
73	66	2055·96	8093·691	1335·22	7517·246	3·937	3·656
74	67	1711·38	6382·311	1166·68	6182·026	3·729	3·612
75	68	1409·78	4972·531	1015·29	5015·346	3·527	3·558
76	69	1147·15	3825·381	845·217	4000·056	3·335	3·487
77	70	922·325	2903·056	690·804	3154·839	3·148	3·421
78	71	733·858	2169·198	549·836	2464·035	2·956	3·358
79	72	578·106	1591·092	453·647	1914·199	2·752	3·311
80	73	448·546	1142·546	368·635	1460·552	2·547	3·256
81	74	340·937	801·6089	293·486	1091·917	2·351	3·203
82	75	253·921	547·6879	232·352	798·4308	2·157	3·144
83	76	183·857	363·8309	185·516	566·0788	1·973	3·079
84	77	128·183	235·6479	132·434	380·5628	1·838	2·969
85	78	87·0391	148·6088	91·6380	248·1288	1·707	2·851
86	79	57·4175	91·1913	61·0999	156·4908	1·588	2·725
87	80	36·7677	54·4236	39·9103	93·3909	1·480	2·540
88	81	22·7833	31·6403	23·4818	55·4806	1·389	2·435
89	82	13·8699	17·7704	13·6812	31·9988	1·281	2·307
90	83	8·26207	9·50829	7·80558	18·3176	1·151	2·217
91	84	4·81320	4·69509	4·76445	10·5120	·975	2·184
92	85	2·61558	2·07951	2·76400	5·74755	·795	2·197
93	86	1·31828	·761233	1·72241	2·98355	·577	2·263
94	87	·550300	·210933	·844415	1·26114	·383	2·292
95	88	·178581	·032352	·339625	·416726	·181	2·334
96	89	·032352	·000000	·077101	·077101	·000	2·383

TABLE XVIII.

Showing the values of the Members' future subscriptions payable Monthly, during the joint lives of themselves and their respective Wives, and the values of Reversionary Pensions to the Wives after the Deaths of their Husbands. Such Pensions to be payable by Half-yearly Instalments in advance, and reduced to one-half on their Re-marriage. Computed at 8 per Cent., on the supposition that the Husband's age exceeds that of the Wife by 7 years, that the Mortality among the Members shall correspond with Table I., that of the Wife while living in Wedlock with Table II., and the Rates of Mortality and Marriage among them after they shall have become Widows shall correspond with Tables III. and IV.

Member's Age.	Value of Future Subscriptions.	Value of Wife's Reversionary Pension.	Member's Age.	Value of Future Subscriptions.	Value of Wife's Reversionary Pension.
20 to 21	9·611	1·589	45 to 46	7 528	2·328
21 „ 22	9·533	1·620	46 „ 47	7·426	2·356
22 „ 23	9·460	1·647	47 „ 48	7·321	2·383
23 „ 24	9·386	1·674	48 „ 49	7·215	2·412
24 „ 25	9·315	1·702	49 „ 50	7·107	2·442
25 „ 26	9·248	1·732	50 „ 51	7·001	2·468
26 „ 27	9·177	1·763	51 „ 52	6·896	2·491
27 „ 28	9·105	1·795	52 „ 53	6·791	2·511
28 „ 29	9·030	1·828	53 „ 54	6·683	2·533
29 „ 30	8·954	1·860	54 „ 55	6·573	2·554
30 „ 31	8·876	1·890	55 „ 56	6·459	2·574
31 „ 32	8 793	1·921	56 „ 57	6·342	2·594
32 „ 33	8·705	1·950	57 „ 58	6·224	2·614
33 „ 34	8·619	1·978	58 „ 59	6·104	2·632
34 „ 35	8·532	2·007	59 „ 60	6·000	2·657
35 „ 36	8·446	2·037	60 „ 61	5·879	2·674
36 „ 37	8·357	2·066	61 „ 62	5 742	2·683
37 „ 38	8·269	2·097	62 „ 63	5·611	2·698
38 „ 39	8·180	2·127	63 „ 64	5·476	2·712
39 „ 40	8·092	2·158	64 „ 65	5·336	2·726
40 „ 41	8·002	2·188	65 „ 66	5·190	2·742
41 „ 42	7·910	2·218	66 „ 67	5·040	2·756
42 „ 43	7·817	2·246	67 „ 68	4·886	2·769
43 „ 44	7·724	2·274	68 „ 69	4·728	2·780
44 „ 45	7·628	2·300	69 „ 70	4·566	2·791

TABLE XVIII.—*(Continued.)*

Member's Age.	Value of Future Subscriptions.	Value of Wife's Reversionary Pension.	Member's Age.	Value of Future Subscriptions.	Value of Wife's Reversionary Pension.
70 to 71	4·400	2·798	83 to 84	2·235	2·554
71 „ 72	4·232	2·804	84 „ 85	2·113	2·477
72 „ 73	4·061	2·806	85 „ 86	2 001	2·391
73 „ 74	3·890	2 801	86 „ 87	1·898	2·298
74 „ 75	3·720	2·790	87 „ 88	1·808	2·184
75 „ 76	3·556	2·764	88 „ 89	1·718	2·071
76 „ 77	3·396	2·733	89 „ 90	1·611	1·987
77 „ 78	3·237	2·704	90 „ 91	1·471	1·947
78 „ 79	3·068	2·681	91 „ 92	1·305	1·955
79 „ 80	2·891	2·668	92 „ 93	1·181	2·008
80 „ 81	2·716	2·653	93 „ 94	·986	2 071
81 „ 82	2·543	2·634	94 „ 95	·731	2·123
82 „ 83	2·377	2·607	95 „ 96	·546	2·185

TABLE XIX.

Showing the values of the Members' future subscriptions payable Monthly during the joint lives of themselves and their respective Wives, and the values of Reversionary Pensions to the Wives after the deaths of their Husbands. Such Pensions to be payable by Half-yearly Instalments in advance, and reduced to one-half on their Re-marriage. Computed at 5 per Cent., on the supposition that the Husband's age exceeds that of the Wife by 7 years, that the Mortality among the Members shall correspond with that of Table I., that of the Wife while living in Wedlock with Table II., and the Rates of Mortality and Marriage among them after they shall have become Widows shall correspond with Tables III. and IV.

Member's Age.	Value of Future Subscriptions.	Value of Wife's Reversionary Pension.	Member's Age.	Value of Future Subscriptions.	Value of Wife's Reversionary Pension.
20 to 21	12·760	3·084	25 to 26	12·110	3·274
21 „ 22	12·618	3·126	26 „ 27	11·983	3·314
22 „ 23	12·488	3·163	27 „ 28	11·855	3·354
23 „ 24	12·361	3·198	28 „ 29	11 724	3·395
24 „ 25	12·234	3 235	29 „ 30	11·592	3·434

TABLE XIX.—*(Continued.)*

Member's Age.	Value of Future Subscriptions.	Value of Wife's Reversionary Pension.	Member's Age.	Value of Future Subscriptions.	Value of Wife's Reversionary Pension.
30 to 31	11·457	3·470	63 to 64	6·311	3·873
31 „ 32	11·316	3·504	64 „ 65	6·123	3·858
32 „ 33	11·172	3·535	65 „ 66	5·931	3·843
33 „ 34	11·026	3·564	66 „ 67	5·734	3·826
34 „ 35	10·884	3·594	67 „ 68	5·534	3·807
35 „ 36	10·740	3·622	68 „ 69	5·331	3·786
36 „ 37	10·595	3·652	69 „ 70	5·127	3·763
37 „ 38	10·451	3·680	70 „ 71	4·918	3·737
38 „ 39	10·308	3·708	71 „ 72	4·709	3·709
39 „ 40	10·165	3·735	72 „ 73	4·500	3·674
40 „ 41	10·019	3·762	73 „ 74	4·291	3·634
41 „ 42	9·873	3 785	74 „ 75	4·086	3·585
42 „ 43	9·726	3·806	75 „ 76	3·889	3·523
43 „ 44	9·578	3·824	76 „ 77	3·699	3·454
44 „ 45	9·377	3·842	77 „ 78	3·510	3·389
45 „ 46	9·274	3·858	78 „ 79	3·312	3·335
46 „ 47	9·117	3·876	79 „ 80	3·108	3·283
47 „ 48	8·959	3·892	80 „ 81	2·907	3·230
48 „ 49	8·799	3·904	81 „ 82	2·712	3·173
49 „ 50	8·638	3·920	82 „ 83	2·523	3·112
50 „ 51	8·979	3·931	83 „ 84	2·363	3.024
51 „ 52	8·323	3·935	84 „ 85	2·231	2·910
52 „ 53	8·167	3·938	85 „ 86	2·106	2·788
53 „ 54	8·011	3·940	86 „ 87	1·992	2·632
54 „ 55	7·849	3·941	87 „ 88	1·892	2·488
55 „ 56	7·685	3·938	88 „ 89	1·793	2·371
56 „ 57	7·518	3·936	89 „ 90	1·674	2·262
57 „ 58	7·351	3·933	90 „ 91	1·521	2·200
58 „ 59	7·183	3·927	91 „ 92	1·343	2·191
59 „ 60	7·016	3·922	92 „ 93	1·144	2·230
60 „ 61	6·845	3·913	93 „ 94	·938	2·277
61 „ 62	6·671	3·900	94 „ 95	·740	2·313
62 „ 63	6·494	3·886	95 „ 96	·548	2·359

TABLE XX.

Showing the values of Annuities on the Members' lives at 5 per Cent. according to the Rate of Mortality exhibited by Table I., and the corresponding values of Annuities payable by monthly Instalments, for estimating the commuted values of the subscriptions payable during the lives of the Retired Annuitants.

Annuities Payable Yearly.				Annuities Payable Monthly.			
Age.	Annuity.	Age.	Annuity.	Age.	Annuity.	Age.	Annuity.
20	14·108	58	8·801	20 to 21	14 507	58 to 59	9·158
21	13·990	59	8·599	21 „ 22	14·395	59 „ 60	8·953
22	13·885	60	8·392	22 „ 23	14·294	60 „ 61	8·745
23	13·787	61	8·181	23 „ 24	14·197	61 „ 62	8·531
24	13·690	62	7·966	24 „ 25	14·099	62 „ 63	8·312
25	13·592	63	7·742	25 „ 26	14·001	63 „ 64	8·086
26	13·494	64	7·514	26 „ 27	13·902	64 „ 65	7·853
27	13·394	65	7·276	27 „ 28	13·800	65 „ 66	7·613
28	13·290	66	7·034	28 „ 29	13·694	66 „ 67	7·369
29	13·183	67	6·787	29 „ 30	13·588	67 „ 68	7·119
30	13·076	68	6·536	30 „ 31	13·478	68 „ 69	6·866
31	12·965	69	6·281	31 „ 32	13·366	69 „ 70	6·610
32	12·851	70	6·023	32 „ 33	13·252	70 „ 71	6·352
33	12·737	71	5·764	33 „ 34	13·136	71 „ 72	6·092
34	12·619	72	5·504	34 „ 35	13·017	72 „ 73	5·832
35	12·498	73	5·245	35 „ 36	12·893	73 „ 74	5·576
36	12·373	74	4·990	36 „ 37	12·766	74 „ 75	5·325
37	12·243	75	4·744	37 „ 38	12·635	75 „ 76	5·085
38	12·110	76	4·511	38 „ 39	12·501	76 „ 77	4·852
39	11·976	77	4·277	39 „ 40	12·365	77 „ 78	4·614
40	11·838	78	4·035	40 „ 41	12·224	78 „ 79	4·364
41	11·695	79	3·776	41 „ 42	12·081	79 „ 80	4·103
42	11·551	80	3·515	42 „ 43	11·937	80 „ 81	3·847
43	11·407	81	3·263	43 „ 44	11·791	81 „ 82	3·600
44	11·258	82	3·020	44 „ 45	11·639	82 „ 83	3·366
45	11·105	83	2·797	45 „ 46	11·484	83 „ 84	3·170
46	10·947	84	2·627	46 „ 47	11·324	84 „ 85	3·007
47	10·784	85	2·471	47 „ 48	11·158	85 „ 86	2·858
48	10·616	86	2·328	48 „ 49	10·987	86 „ 87	2·718
49	10·443	87	2 193	49 „ 50	10·814	87 „ 88	2·595
50	10·269	88	2 080	50 „ 51	10·641	88 „ 89	2·460
51	10·097	89	1·924	51 „ 52	10·469	89 „ 90	2·281
52	9·925	90	1·723	52 „ 53	10·295	90 „ 91	2·043
53	9·748	91	1·447	53 „ 54	10·115	91 „ 92	1·758
54	9·567	92	1·153	54 „ 55	9·933	92 „ 93	1·443
55	9·382	93	·816	55 „ 56	9·746	93 „ 94	1·128
56	9·193	94	·524	56 „ 57	9·554	94 „ 95	·839
57	8·999	95	·238	57 „ 58	9·358	95 „ 96	.577

TABLE XXI.

Showing the values of Annuities at 5 per Cent. on the joint lives of Fathers and Sons computed on the supposition that the average difference of age between the Father and Son is 35 years, that the Fathers are subject to the Rate of Mortality exhibited by Table I., the Sons to that shown by Table III., that the Annuities are payable by monthly Instalments and cease on the Son's attaining the age of 21 years.

Age of F	Age of S	D	N	$\frac{11}{24}(D-\overset{t}{D})$	K	Value of £1 Annuity.	Son's Age.	Value of £1 Annuity.
35	0	727336	6407613	280339	6687952	9·195	0 to 1	9·318
36	1	636588	5771025	238746	6009771	9·441	1 „ 2	9·440
37	2	572879	5198146	209546	5407692	9·440	2 „ 3	9·402
38	3	519406	4678740	185038	4863778	9·364	3 „ 4	9·281
39	4	475004	4203736	164687	4368423	9·197	4 „ 5	9·081
40	5	436614	3767122	147092	3914214	8·965	5 „ 6	8·825
41	6	402555	3364567	131481	3496048	8·685	6 „ 7	8·524
42	7	371906	2992661	117434	3110095	8·363	7 „ 8	8·189
43	8	343505	2649156	104417	2753573	8·016	8 „ 9	7·828
44	9	317358	2331798	92433	2424231	7·639	9 „ 10	7·434
45	10	293241	2038557	81379	2119936	7·229	10 „ 11	7·008
46	11	270891	1767666	71135	1838801	6·788	11 „ 12	6·551
47	12	250114	1517552	61612	1579164	6·314	12 „ 13	6·059
48	13	230775	1286777	52749	1339526	5·804	13 „ 14	5·531
49	14	212753	1074024	44489	1118513	5·257	14 „ 15	4·963
50	15	195925	878099	36776	914875	4·669	15 „ 16	4·354
51	16	180129	697970	29536	727506	4·039	16 „ 17	3·699
52	17	165333	532637	22754	555391	3·359	17 „ 18	2·991
53	18	151526	381111	16426	397537	2·624	18 „ 19	2·224
54	19	138672	242439	10535	252974	1·824	19 „ 20	1·389
55	20	126752	115687	5071	120758	·953	20 „ 21	·476
56	21	115687	000000	0000	000000	·000		

TABLE XXII.

Showing the values of Annuities on the joint lives of Fathers and Daughters to cease also on the Marriage of the Daughters, computed at 5 per Cent., on the supposition that on an average the Fathers' ages will exceed those of the Daughters by 35 years, that the Fathers shall be subject to the Rate of Mortality exhibited by Table I., and the Daughters to the Rates of Mortality and Marriage shown by Table IV.

Age of F	Age of D	D	N	AB	Daughter's Age.	Value of £1 Annuity, payable by Monthly instalments.
35	0	292971	2712784	9·260	0 to 1	9·877
36	1	256416	2456368	9·579	1 „ 2	10·082
37	2	230225	2226143	9·669	2 „ 3	10·125
38	3	208735	2017408	9·665	3 „ 4	10·075
39	4	190893	1826515	9·568	4 „ 5	9·947
40	5	175466	1651049	9·410	5 „ 6	9·766
41	6	161778	1489271	9·206	6 „ 7	9·543
42	7	149462	1339809	8·964	7 „ 8	9·292
43	8	138049	1201760	8·705	8 „ 9	9·022
44	9	127542	1074218	8·422	9 „ 10	8·726
45	10	117850	956368·1	8·115	10 „ 11	8·408
46	11	108867	847501·1	7·785	11 „ 12	8·066
47	12	100517	746984·1	7·431	12 „ 13	7·701
48	13	92744·5	654239·6	7·054	13 „ 14	7·311
49	14	85501·9	568737·7	6 652	14 „ 15	6·932
50	15	77951·3	490786·4	6·296	15 „ 16	6·600
51	16	70232·5	420553·9	5·988	16 „ 17	6·315
52	17	62530·0	358023·9	5·726	17 „ 18	6·075
53	18	55016·5	303007·4	5·508	18 „ 19	5·913
54	19	47328·5	255678·9	5·402	19 „ 20	5·871
55	20	39798·6	215880·3	5·424	20 „ 21	5·935
56	21	33055·7	182824·6	5·531	21 „ 22	6·036
57	22	27596·3	155228·3	5·625	22 „ 23	6·115
58	23	23208·5	132019·8	5·688	23 „ 24	6·186
59	24	19506·1	112513·7	5·768	24 „ 25	6·238
60	25	16562·2	95951·54	5·793	25 „ 26	6·261
61	26	14082·8	81868·74	5·813	26 „ 27	6·272
62	27	12015·4	69853·34	5·814	27 „ 28	6·263
63	28	10277·0	59576·34	5·797	28 „ 29	6·235
64	29	8817 63	50758·71	5·756	29 „ 30	6·179
65	30	7591·16	43167·55	5·687	30 „ 31	6·099

TABLE XXII.—*(Continued.)*

Age of F	Age of D	D	N	AB	Daughter's Age.	Value of £1 Annuity, payable by Monthly instalments.
66	31	6546·06	36621·49	5·594	31 to 32	5·998
67	32	5645·84	30975·65	5·486	32 „ 33	5·882
68	33	4868·88	26106·77	5·362	33 „ 34	5·752
69	34	4193·05	21913·72	5·226	34 „ 35	5·610
70	35	3604·52	18309·20	5·079	35 „ 36	5·459
71	36	3091·69	15217·51	4·922	36 „ 37	5·297
72	37	2643·48	12574·03	4·757	37 „ 38	5·128
73	38	2252·27	10321·76	4·583	38 „ 39	4·952
74	39	1909·89	8411·868	4·404	39 „ 40	4·771
75	40	1610·54	6801·328	4·223	40 „ 41	4·593
76	41	1347·81	5453·518	4·046	41 „ 42	4·410
77	42	1122·24	4331·278	3·859	42 „ 43	4·218
78	43	929·241	3402·037	3·661	43 „ 44	4·010
79	44	765·906	2636·131	3·442	44 „ 45	3·786
80	45	625·505	2010·626	3·214	45 „ 46	3·560
81	46	503·838	1506·788	2·991	46 „ 47	3·340
82	47	399·498	1107·290	2·772	47 „ 48	3·128
83	48	310·239	797·051	2·569	48 „ 49	2·951
84	49	233·292	563·759	2·417	49 „ 50	2·806
85	50	171·961	391·798	2·279	50 „ 51	2·676
86	51	124·092	267·706	2·157	51 „ 52	2·557
87	52	88·0036	179·703	2·042	52 „ 53	2·453
88	53	60·9821	118·721	1·947	53 „ 54	2·337
89	54	42·2225	76·4981	1·812	54 „ 55	2·181
90	55	29·0483	47·4498	1·634	55 „ 56	1·966
91	56	19·9267	27·5231	1·381	56 „ 57	1·702
92	57	13·0644	14·4587	1·107	57 „ 58	1·405
93	58	8·0877	6·3710	·788	58 „ 59	1·106
94	59	4·2245	2·1465	·508	59 „ 60	·828
95	60	1·7423	·4042	·232	60 „ 61	·574
96	61	·4042	·0000	·000	61 „ 62	·229

APPENDIX I.

Being a Classification of the Widows and Children, Pensioners on the Bengal Civil Fund according to the years of their respective Births, as taken from the List furnished to the Actuary in 1850.

Year of Birth.	Widows born therein.		Children.				
			Year of Birth.	Daughters.		Sons.	
1825	I	1					
1824	II	2					
1823	I	1	1849				
1822			1848	I	1		
1821	I	1	1847	III	3	I	1
1820			1846			I	1
1819	IIII	4	1845	I	1	I	1
1818	I	1	1844	IIIII	5	I	1
1817	II	2	1843			I	1
1816	II	2	1842	III	3	II	2
1815	I	1	1841			IIIII	5
1814			1840	III	3	IIIII	5
1813	I	1	1839	IIII	4	IIIII	5
1812			1838	III	3	III	3
1811	I	1	1837	I	1	III	3
1810	III	3	1836	IIII	4	IIIII II	7
1809	II	2	1835	I	1	III	3
1808	I	1	1834	IIIII II	7	III	3
1807	I	1	1833			IIII	4
1806	II	2	1832	IIIII II	7	IIIII IIIII	10
1805	I	1	1831	III	3	II	2
1804	IIIII	5	1830	IIIII IIIII I	11	III	3
1803	III	3	1829	IIII	4	I	1
1802	IIII	4	1828	III	3		
1801	I	1	1827	III	3		
1800	IIII	4	1826	I	1		
1799	IIIII	5	1825				
1798	III	3	1824	III	3		
1797	IIII	4	1823	II	2		
1796			1822	IIII	4		
1795	II	2	1821	II	2		
1794	II	2	1820	III	3		
1793	III	3	1819	I	1		
1792	I	1	1818				
1791	III	3	1817	I	1		

APPENDIX I.—*(Continued.)*

Year of Birth.	Widows born therein.		Children.				
			Year of Birth.	Daughters.		Sons.	
1790	III	3	1816	I	1		
1789	II	2	1815	II	2		
1788	II	2	1814	I	1		
1782	I	1	1807	I	1		
1780	I	1	1806	I	1		
1776	I	1	1797	I	1		
1772	I	1					
1770	I	1					
		79			91		61

APPENDIX II.

Containing a Classification of the Living Members' Children, according to their respective Births, or rather such of the Children as were comprised in the List furnished to the Actuary in 1850.

Year of Birth.	Daughters.	Total.	Sons.	Total.	Total of both Sexes.
1850	IIII IIII IIII III	18	IIII IIII IIII I	16	34
1849	IIII IIII IIII IIII III	23	IIII IIII IIII IIII IIII IIII IIII IIII IIII IIII II	52	75
1848	IIII IIII IIII IIII IIII II	27	IIII IIII IIII IIII IIII IIII	30	57
1847	IIII IIII IIII IIII IIII III	28	IIII IIII IIII IIII IIII IIII IIII III	38	66
1846	IIII IIII IIII IIII IIII	24	IIII IIII IIII IIII IIII II	27	51
1845	IIII IIII IIII IIII IIII III	28	IIII IIII IIII IIII IIII	25	53

APPENDIX II.—*(Continued.)*

Year of Birth.	Daughters.	Total.	Sons.	Total.	Total of both Sexes.
1844	IIIII IIIII IIIII IIIII IIIII III	28	IIIII IIIII IIIII IIIII IIIII I	26	54
1843	IIIII IIIII IIIII IIIII IIIII IIII	29	IIIII IIIII IIIII IIIII IIIII II	27	56
1842	IIIII IIIII IIIII IIIII IIIII IIIII	30	IIIII IIIII IIIII IIIII II	22	52
1841	IIIII IIIII IIIII III	18	IIIII IIIII IIIII IIIII IIIII	25	43
1840	IIIII IIIII IIIII IIIII I	21	IIIII IIIII IIIII IIIII IIIII III	28	49
1839	IIIII IIIII IIIII II	17	IIIII IIIII IIIII IIIII IIIII III	28	45
1838	IIIII IIIII IIIII II	17	IIIII IIIII IIIII IIII	19	36
1837	IIIII IIIII IIIII III	18	IIIII IIIII IIIII II	17	35
1836	IIIII IIIII IIIII II	17	IIIII IIIII IIIII III	18	35
1835	IIIII IIIII IIIII I	16	IIIII IIIII IIIII III	18	34
1834	IIIII III	8	IIIII IIIII	10	18
1833	IIIII IIIII I	11	IIIII IIIII I	11	22
1832	IIIII IIIII	10	IIIII IIIII I	11	21
1831	IIIII IIII	9	IIIII III	8	17
1830	IIIII I	6	IIIII I	6	12
1829	IIIII IIIII II	12	IIII	4	16
1828	IIIII IIII	9			9
1827					
1826	II	2			2
1825	IIII	4			4
1824	II	2			2
1823					
1822	I	1			1
1821	I	1			1
1820	III	3			3
1819	I	1			1
1818					
1817	II	2			2
1816	III	3			3
1815	II	2			2
1814	I	1			1
1813	I	1			1
1812					
1811	I	1			1
		448		466	914

APPENDIX III.

Containing a Classification of such of the Married Members and Widowers, with Offspring, as had the ages of themselves, and the ages of their Wives or the number of their Children supplied in the list furnished to the Actuary in 1850. *The Classification being made according to the years of the Members' Births.*

No. on the List.	No. of Children.	No. on the List.	Year of Wife's Birth.	No. on the List.	No. of Children.	No. on the List.	Year of Wife's Birth.	No. on the List.	No. of Children.	No. on the List.	Year of Wife's Birth.
1780.				1781.				1782.			
2	4	2	1804	3	2	3	1819	9	3	9	1789
						1 R	1793				
				14 R	3						
1	4	1	1804	2	5	2	3612	1	3	1	1789
							1806				
1784.				1785.				1786.			
		25	1819			3	1789	28	2		
						4	1789				
				8	5	8	1804				
				21							
		1	1819	2	9	3	5382	1	2		
							1794				
1787.				1788.				1789.			
29	3	29	1788	5	5	5	1791	6	1	6	1790
				17	6	22	1804	33	1		
				22	3	31	1796	37	3		
				31	5	34	1801				
				34	4	35	1799				
				35	8						
1	3	1	1788	6	31	5	8991	3	5	1	1790
							1798				

APPENDIX III.—*(Continued.)*

No. on the List.	No. of Children.	No. on the List.	Year of Wife's Birth.	No. on the List.	No. of Children.	No. on the List.	Year of Wife's Birth.	No. on the List.	No. of Children.	No. on the List.	Year of Wife's Birth.
1790.				1791.				1792.			
10	7	11	1822	7	1	7	1800	16	1	26	1816
27	6	10	1803	32	4	9	1800	26	5		
		27	1799			32	1799				
2	13	3	5424	2	5	3	5399	2	6	1	1816
			1808				1800				
1793.				1794.				1795.			
41	7	41	1799	13	3	13	1796	12	5	12	1808
				15	3	15	1814	16	3	45	1824
				36	8	36	1803	45	1		
				48	2	48	1803				
1	7	1	1799	4	16	4	7216	3	9	2	3632
							1804				1816
1796.				1797.				1798.			
14	7	14	1822	17	4	18	1800	34	2	20	1805
				18	3	46	1794	54	7	21	1806
				24	1					34	1809
										54	1808
1	7	1	1822	3	8	2	3594	2	9	4	7228
							1797				1807
1799.				1800.				1801.			
25	5	23	1805	26	4	22	1804	35	2	33	1811
27	5	25	1821	32	7	26	1804	36	7	35	1809
30	5	27	1817	50	1	32	1802			36	1799
42	7	42	1813	53	7	50	1804				
43	5	43	1801			53	1808				
5	27	5	9057	4	19	5	9022	2	9	3	5419
			1811				1804				1806

APPENDIX III.—*(Continued.)*

No. on the List.	No. of Children.	No. on the List.	Year of Wife's Birth.	No. on the List.	No. of Children.	No. on the List.	Year of Wife's Birth.	No. on the List.	No. of Children.	No. on the List.	Year of Wife's Birth.
1802.				1803.				1804.			
37	5	38	1818	45	1	45	1819	52	6	55	1801
38	3	41	1805	50	8	50	1805	53	4	60	1806
39	2	42	1806	49	3	49	1808	54	3	63	1804
42	1	43	1805	56	1	56	1816	55	5		
43	7	46	1807					60	3		
46	7	48	1821					63	1		
47	4	49	1805								
49	4	58	1830								
58	2										
9	35	8	14497	4	13	4	7248	6	22	3	5411
			1812				1812				1804
1805.				1806.				1807.			
56	1	56	1828	70	8	70	1811	75	8	75	1806
57	2	61	1818	71	5	71	1808	82	4	77	1820
61	5	66	1803	72	3	72	1819	84	6	82	1817
66	5	67	1810	73	4	73	1821	85	2	83	1819
67	6	78	1822	74	3	76	1818	87	6	84	1806
78	3	79	1811	76	2			91	4	85	1818
88	2	88	1820	95	3			93	3	91	1817
106	2	106	1812	64	2			102	3	93	1822
108	5	108	1817					104	1	102	1826
110	9	110	1805					107	8	107	1811
								113	5	113	1814
								114	6	114	1817
								143	3	143	1812
								174	6	174	1805
								227	8	227	1817
10	40	10	18146	8	30	5	9077	15	73	15	27227
			1815				1815				1815

APPENDIX III.—*(Continued.)*

No. on the List.	No. of Children.	No. on the List.	Year of Wife's Birth.	No. on the List.	No. of Children.	No. on the List.	Year of Wife's Birth.	No. on the List.	No. of Children.	No. on the List.	Year of Wife's Birth.
1808.				1809.				1810.			
89	5	89	1821	116	2	116	1829	134	6	134	1824
92	8	92	1812	117	4	117	1816	137	5	137	1818
94	7	94	1804	123	4	123	1820	139	4	139	1812
97	9	97	1812	127	5	127	1818	140	2	140	1825
99	5	99	1810	128	5	128	1824	144	7	144	1821
101	5	101	1806	129	2	129	1827	148	3	150	1811
105	4	105	1816	131	4	132	1823	150	2	156	1818
111	6	109	1808	132	4	145	1819	156	6	170	1817
119	7	111	1810	145	4	151	1817	158	1		
133	5	119	1814	155	7	152	1818	170	3		
142	5	122	1801			153	1814				
146	1	133	1809			155	1809				
194	4	142	1825								
		146	1830								
		194	1821								
13	71	15	27199	10	41	12	21834	10	39	8	14546
			1813				1820				1818
1811.				1812.				1813.			
135	4	135	1826	187	4	187	1818	207	6	207	1813
159	8	160	1819	192	5	192	1806	208	1	208	1826
160	6	162	1819	195	2	195	1822	214	1	213	1823
162	8	163	1829	199	7	198	1819	217	6	214	1814
163	1	164	1820	201	7	199	1810	218	4	216	1819
164	5	166	1825	202	6	200	1815	222	6	218	1824
165	1	177	1826	203	1	201	1821	233	5	220	1826
166	2	178	1810	205	7	203	1801			222	1821
169	3	180	1812	206	1	204	1828			233	1813
175	4	181	1815	212	2	205	1812				
178	6	182	1815	219	5	206	1823				
180	6	189	1815	221	2	212	1820				
181	6	190	1815	232	5	219	1821				
182	5	191	1818	238	4	221	1825				
189	4	193	1820			232	1816				
190	5	197	1812			238	1820				
191	9										
197	5										
18	88	16	29096	14	58	16	29077	7	29	9	16379
			1818				1817				1820

APPENDIX III.—*(Continued.)*

No. on the List.	No. of Children.	No. on the List.	Year of Wife's Birth	No. on the List.	No. of Children.	No. on the List.	Year of Wife's Birth	No. on the List.	No. of Children.	No. on the List.	Year of Wife's Birth
1814.				1815.				1816.			
223	5	223	1817	234	5	234	1820	242	3	242	1821
228	1	228	1822	236	5	237	1821	243	5	243	1817
230	4	239	1831	237	3	245	1819	247	5	247	1821
241	1	241	1829	244	5	251	1821	252	5	252	1820
				248	3	273	1817	256	5	256	1818
				273	5			262	2	262	1817
								263	5	263	1819
										266	1811
4	11	4	7299	6	26	5	9098	7	30	8	14544
			1825				1820				1818
1817.				1818.				1819.			
246	3	249	1824	258	5	258	1822	270	5	270	1822
261	2	255	1820	259	3	259	1821	274	1	274	1830
265	4	260	1821	264	5	264	1822	275	5	275	1816
267	1	261	1821	302	3	302	1828	286	2	276	1831
284	3	265	1818					287	1	286	1826
		267	1817							287	1828
		284	1826								
5	13	7	12747	4	16	4	7293	5	14	6	10953
			1821				1823				1825
1820.				1821.				1822.			
278	1	278	1821	289	4	289	1823	298	2	298	1827
300	1	294	1831	290	2	290	1827	303	3	303	1824
304	3	300	1825	291	1	291	1825	305	1	305	1827
317	3	304	1827	293	2	293	1827	309	2	309	1819
330	3	317	1825	307	1	307	1828	310		310	1829
		330	1822	320	2	320	1823	312	2	312	1824
				321	2	321	1822	314	1	314	1831
				334	1	334	1821	333	4	333	1821
				348	1	343	1819	394	2	394	1828
						348	1823				
						358	1829				
						371	1827				
5	11	6	10951	9	16	12	21894	8	17	9	16430
			1825				1825				1826

APPENDIX III.—*(Continued.)*

No. on the List.	No. of Children.	No. on the List.	Year of Wife's Birth.	No. on the List.	No. of Children.	No. on the List.	Year of Wife's Birth.	No. on the List.	No. of Children.	No. on the List.	Year of Wife's Birth.
1823.				1824.				1825.			
318	1	318	1827	329	2	329	1829	383	1	360	1827
351	2	325	1826	331	1	331	1821	436	1	374	1827
367	3	351	1823	332	1	332	1831			383	1825
		367	1826	345	1	345	1824			436	1827
		393	1822	346	1	346	1829				
				363	3	347	1827				
				365	1	363	1826				
				404	2	365	1822				
						380	1829				
						404	1831				
						414	1827				
						420	1822				
3	6	5	9124	8	12	12	21918	2	2	4	7306
			1825				1826				1827
1826.				1827.				1828.			
377	1	377	1829	448	1	448	1826			467	1828
407	2	400	1828			449	1829				
		407	1828			456	1828				
		418	1828								
2	3	4	7313	1	1	3	5483			1	1828
			1828				1828				

APPENDIX IV.

Abstracted from the last Appendix, showing the number of Married Members born in each year whose Wives' ages were furnished, with the average date of Birth of the Wives of each Class, the difference between that average and the date of the Husbands' Births, and the sums and averages of the dates of Birth of both sexes.

Number of Members.	Date of Members' Births.	Average Dates of the Wives' Births.	Difference of Age.	Sum of the Members' Dates of Birth.	Sum of the Wives' Ditto.	Number of Members.	Dates of Members' Births.	Average Dates of the Wives' Births.	Difference of Age.	Sum of the Members' Dates of Birth.	Sum of the Wives' Ditto.
1	1780	1804	24	1780	1804	74			285	132943	133705
2	1781	1806	25	3562	3612	5	1806	1815	9	9030	9077
1	1782	1789	7	1782	1789	15	1807	1815	8	27105	27227
1	1784	1819	35	1784	1819	15	1808	1812	4	27120	27199
3	1785	1794	9	5355	5382	12	1809	1820	11	21698	21834
1	1787	1788	1	1787	1788	8	1810	1818	8	14480	14546
5	1788	1798	10	8940	8991	16	1811	1818	7	28976	29096
1	1789	1790	1	1789	1790	16	1812	1817	5	28992	29077
3	1790	1808	18	5370	5424	9	1813	1820	7	16317	16379
3	1791	1800	9	5373	5399	4	1814	1825	11	7256	7299
1	1792	1816	24	1792	1816	5	1815	1820	5	9075	9098
1	1793	1799	6	1793	1799	8	1816	1818	2	14528	14544
4	1794	1804	10	7176	7216	7	1817	1821	4	12719	12747
2	1795	1816	21	3590	3632	4	1818	1823	5	7272	7293
1	1796	1822	26	1796	1822	6	1819	1825	6	10914	10953
2	1797	1797	0	3594	3594	6	1820	1825	5	10920	10951
4	1798	1807	9	7192	7228	12	1821	1825	4	21852	21894
5	1799	1811	12	8995	9057	9	1822	1826	4	16398	16430
5	1800	1804	4	9000	9022	5	1823	1825	2	9115	9124
3	1801	1806	5	5403	5419	12	1824	1826	2	21888	21918
8	1802	1812	10	14416	14497	4	1825	1827	2	7300	7306
4	1803	1812	9	7212	7248	4	1826	1828	2	7304	7313
3	1804	1804	0	5412	5411	3	1827	1828	1	5481	5483
10	1805	1815	10	18050	18146	1	1828	1828	0	1828	1828
74			285	132943	133705	260			399	470511	472321

If we divide the sum of the difference of ages by 47, the number of Classes, we have 399 ÷ 47 = 8½ years for the average difference of age obtained by taking one Husband and one Wife of each class.

But by dividing 472321 the sum of the Wives' dates of Births by 260, the number of married Pairs we have their average dates of Births,..... = 1816·63

Ditto of the Husbands' dates of Births = 470511 ÷ 260 = 1809·66

Leaving the correct average difference of age = 6·97

Or very nearly 7 years.

APPENDIX V.

Showing from Appendix III. the number of Children belonging to Fathers born in each year and the Product of that number multiplied by the Fathers' dates of Birth. Showing also, from Appendix II., the number of Children born in each year, and the Product of that number multiplied by the year of their Births; and the difference between the average age of the Children and that of the Fathers.

Year of the Fathers' Births.	Number of Children.	Product of the numbers in the last two Columns.	Year of the Children's Births.	Number of Children.	Product of the numbers in the last two Columns.	Year of the Fathers' Births.	Number of Children.	Product of the numbers in the last two Columns.	Year of the Children's Births.	Number of Children.	Product of the numbers in the last two Columns.
1780	4	7120	1850	34	62900		307	551638		892	1642768
1781	5	8905	1849	75	138675	1806	30	54180	1825	4	7300
1782	3	5346	1848	57	105336	1807	73	131911	1824	2	3648
1785	9	16065	1847	66	121902	1808	71	128368	1822	1	1822
1786	2	3572	1846	51	94146	1809	41	74169	1821	1	1821
1787	3	5361	1845	53	97785	1810	39	70590	1820	3	5460
1788	31	55428	1844	54	99576	1811	88	159368	1819	1	1819
1789	5	8945	1843	56	103208	1812	58	105096	1817	2	3634
1790	13	23270	1842	52	95784	1813	29	52577	1816	3	5448
1791	5	8955	1841	43	79163	1814	11	19954	1815	2	3630
1792	6	10752	1840	49	90160	1815	26	47190	1814	1	1814
1793	7	12551	1839	45	82755	1816	30	54480	1813	1	1813
1794	16	28704	1838	36	66168	1817	13	23621	1811	1	1811
1795	9	16155	1837	35	64295	1818	16	29088			
1796	7	12572	1836	35	64260	1819	14	25466			
1797	8	14376	1835	34	62390	1820	11	20020			
1798	9	16182	1834	18	33012	1821	16	29136			
1799	27	48573	1833	22	40326	1822	17	30974			
1800	19	34200	1832	21	38472	1823	6	10938			
1801	9	16209	1831	17	31127	1824	12	21888			
1802	35	63070	1830	12	21960	1825	2	3650			
1803	13	23439	1829	16	29264	1826	3	5478			
1804	22	39688	1828	9	16452	1827	1	1827			
1805	40	72200	1826	2	3652						
	307	551638		892	1642768		914	1651607		914	1682788

If in the above we divide the sum of the Dates of the Children's Births by the number of them we have ... $1682788 \div 914 = 1841$

Ditto of the Fathers, ... $1651607 \div 914 = 1807$

And the difference between the ages of the Fathers and Children, 34 yrs.

From Appendix III. it will also be found that the number of Fathers recorded in the List furnished to the Actuary amounted to 241. Hence dividing the number of Children by the number of their Fathers it will be found that the average number of Children to each Father in 1850 was $= 914 \div 241 = 3\frac{3}{5}$.

APPENDIX VI.

Containing a Classification of the Members, and of the Annuitants into Married Members, Widowers and Bachelors, and those whose descriptions are unknown, and distinguishing the Married Members into two Subdivisions, the one containing those whose ages and the ages of their Wives are given, and the other containing those whose ages or whose Wives' ages were not furnished.

Members distinguished into Active and Retired Members.	Married Members.			Bachelors.	Widowers.	Uncertain Description.	Total.
	Whose ages are known.	Whose ages are unknown.	Total.				
Active Members, ...	233	15	248	216	30	5	499
Retired ditto, ...	27	.....	27	8	9	11	55
Both, ...	260	15	275	224	39	16	554

This Appendix contains two young Members of the names of J. H. B. Colvin and B. W. Colvin, whose names were furnished me by the Agents but were not contained in the original list; and from the number of the Retired Members one has been omitted, because F. B. S. Wilder is stated to have died.

APPENDIX VII.

In which the Widows and Children Pensioners are classified according to the first Letters of their Surnames, with the amounts of their Net and Full Pensions.

Letter.	Widows.	Daughters.	Sons.	Net Pension.	Full Pension.	Letter.	Widows.	Daughters.	Sons.	Net Pension.	Full Pension.
A	1	1		400·000	400	Bt.up.	33	44	32	12566·745	18260
B	9	18	9	3383·400	5960	L	9	7	3	3427·287	3860
C	6	11	6	2265·362	3460	M	7	7	2	2487·338	3260
D	...	3	3	200·000	510	N	...	1	..	100·000	100
E	2	1	1	800·000	800	P	2	2	...	780·000	900
F	5	2	0	1580·208	1730	R	4	4	3	1506·383	2080
G	4	3	5	1381·671	2140	S	7	6	3	2586·067	3280
H	3	4	6	1114·446	1960	T	10	11	11	4171·829	5170
J	2	1	2	641·658	1000	V	1	4	2	780·000	860
K	1	...	...	300·000	300	W	5	4	4	1425·646	2300
						Y	1	1	1	360·000	360
	33	44	32	12566·745	18260		79	91	61	30191·295	40430

APPENDIX VIII.

Showing the number of Females expected to become Widows and the number of Children expected to become Fatherless in the year 1850, *according to the Rate of Mortality exhibited by Table I.*

Year of Members' Births.	Age in 1849.	Probability of Death in 1850.	No. of Wives.	No. of Children.	No. of Females expected to become Widows.	No. of Children expected to become Fatherless.	Year of Members' Births.	Age in 1849.	Probability of Death in 1850.	No. of Wives.	No. of Children.	No. of Females expected to become Widows.	No. of Children expected to become Fatherless.
1780	69	·060795	1	4	·0608	·2432	Bt.up.			74	307	2·4043	9·7176
1781	68	·057471	2	5	·1149	·2874	1806	43	·022914	5	30	·1146	·6874
1782	67	·054348	1	3	·0544	·1630	1807	42	·022401	15	73	·3360	1·6353
1784	65	·049020	1		·0490		1808	41	·021635	15	71	·3246	1·5361
1785	64	·046729	3	9	·1401	·4206	1809	40	·020908	12	41	·2509	·8572
1786	63	·045176		2		·0903	1810	39	·020480	8	39	·1638	·7987
1787	62	·043223	1	3	·0432	·1297	1811	38	·020069	16	88	·3211	1·7660
1788	61	·041922	5	31	·2096	1·2996	1812	37	·019420	16	58	·3107	1·1264
1789	60	·040235	1	5	·0402	·2012	1813	36	·019050	9	29	·1715	·5525
1790	59	·038679	3	13	·1160	·5028	1814	35	·018694	4	11	·0748	·2056
1791	58	·037239	3	5	·1117	·1862	1815	34	·018351	5	26	·0918	·4771
1792	57	·035902	1	6	·0359	·2154	1816	33	·018020	8	30	·1442	·5406
1793	56	·034658	1	7	·0347	·2426	1817	32	·017701	7	13	·1239	·2301
1794	55	·033497	4	16	·1340	·5360	1818	31	·017165	4	16	·0686	·2747
1795	54	·032411	2	9	·0648	·2917	1819	30	·016876	6	14	·1013	·2363
1796	53	·031394	1	7	·0314	·2197	1820	29	·016596	6	11	·0996	·1826
1797	52	·030438	2	8	·0609	·2435	1821	28	·016108	12	16	·1932	·2577
1798	51	·029539	4	9	·1181	·2658	1822	27	·015852	9	17	·1427	·2695
1799	50	·028351	5	27	·1418	·7655	1823	26	·015605	5	6	·0780	·0936
1800	49	·026908	5	19	·1345	·5113	1824	25	·015365	12	12	·1864	·1844
1801	48	·025879	3	9	·0776	·2329	1825	24	·014928	4	2	·0597	·0299
1802	47	·025227	8	35	·2018	·8829	1826	23	·014502	4	3	·0580	·0435
1803	46	·024606	4	13	·0984	·3199	1827	22	·014102	3	1	·0423	·0141
1804	45	·024015	3	22	·0960	·5283	1828	21	·013121	1		·0131	
1805	44	·023452	10	40	·2345	·9381							
			74	307	2·4043	9·7176				260	914	5·8751	21·7169

APPENDIX IX.

Showing the values of the Incumbent Widows' full Pensions on 1st January 1850.

Year of Birth.	Age on 1st January 1850.	No. of that age.	Value of £1 Pension till Death or Re-marriage.	Value of £1 Pension till Death to be reduced to ½ on Re-marriage.	Total Value of £1 Pension on each Age If made to cease on Death or Re-marriage.	Total Value of £1 Pension on each Age If reduced to one-half on Re-marriage.
1825	24 to 25	1	8·077	9·759	8·077	9·759
1824	25 „ 26	2	8·284	9·845	16·568	19·690
1823	26 „ 27	1	8·478	9·925	8·478	9·925
1821	28 „ 29	1	8·835	10·067	8·835	10·067

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APPENDIX IX.—(Continued.)

Year of Birth.	Age on 1st January 1850.	No. of that Age.	Value of £1 Pension till Death or Re-marriage.	Value of £1 Pension till Death to be reduced to ½ on Re-marriage.	Total value of £1 Pension on each age. If made to cease on Death or Re-marriage.	Total value of £1 Pension on each age. If reduced to one-half on Re-marriage.
1819	30 to 31	4	9·112	10·166	36·448	40·664
1818	31 „ 32	1	9·225	10·202	9·225	10·202
1817	32 „ 33	2	9·326	10·232	18·652	20·464
1816	33 „ 34	2	9·416	10·256	18·832	20·512
1815	34 „ 35	1	9·500	10·274	9·500	10·274
1813	36 „ 37	1	9·639	10·293	9·639	10·293
1811	38 „ 39	1	9·734	10·286	9·734	10·286
1810	39 „ 40	3	9·761	10·268	29·283	30·804
1809	40 „ 41	2	9·772	10·241	19·544	20·482
1808	41 „ 42	1	9·765	10·202	9·765	10·202
1807	42 „ 43	1	9·745	10·155	9·745	10·155
1806	43 „ 44	2	9·714	10·101	19·428	20·202
1805	44 „ 45	1	9·671	10·037	9·671	10·037
1804	45 „ 46	5	9·617	9·965	48·085	49·825
1803	46 „ 47	3	9·556	9·888	28·668	29·664
1802	47 „ 48	4	9·490	9·805	37·960	39·220
1801	48 „ 49	1	9·428	9·721	9·428	9·721
1800	49 „ 50	4	9·371	9·637	37·484	38·548
1799	50 „ 51	5	9·323	9·555	46·615	47·775
1798	51 „ 52	3	9·275	9·469	27·825	28·407
1797	52 „ 53	4	9·216	9·375	36·864	37·500
1795	54 „ 55	2	9·071	9·164	18·142	18·328
1794	55 „ 56	2	8·979	9·045	17·958	18·090
1793	56 „ 57	3	8·868	8·913	26·604	26·739
1792	57 „ 58	1	8·744	8·773	8·744	8·773
1791	58 „ 59	3	8·608	8·624	25·824	25·872
1790	59 „ 60	3	8·459	8·467	25·377	25·401
1789	60 „ 61	2	8·298	8·299	16·596	16·598
1788	61 „ 62	2	8·122	8·122	16·244	16·244
1782	67 „ 68	1	6·950	6·950	6·950	6·950
1780	69 „ 70	1	6·535	6·535	6·535	6·535
1776	73 „ 74	1	5·693	5·693	5·693	5·693
1772	77 „ 78	1	4·864	4·864	4·864	4·864
1770	79 „ 80	1	4·467	4·467	4·467	4·467
		79	And these multiplied by		708·351 300	739·232 300

Give the values of the full Pensions £212505·3 and £221769·6
And deducting the first from the second „212505·3

There remains for the estimated value of the extended half Pension after Re-marriage, ... £ 9264·3

APPENDIX X.

Showing the estimated value of the full Benefits to the Incumbent Children on the 1st of January 1850.

Year of Birth.	Sons' Pensions. Age.	No. of that Age.	Value of each Pension.	Total Value.
1848	1 to 2			
1847	2 „ 3	1	652·26	652·26
1846	3 „ 4	1	689·80	689·80
1845	4 „ 5	1	725·94	725·94
1844	5 „ 6	1	746·23	746·23
1843	6 „ 7	1	750·02	750·02
1842	7 „ 8	2	752·90	1505·80
1841	8 „ 9	5	744·86	3724·30
1840	9 „ 10	5	724·90	3624·50
1839	10 „ 11	5	702·84	3514·20
1838	11 „ 12	3	668·07	2004·21
1837	12 „ 13	3	619·62	1858·86
1836	13 „ 14	7	567·12	3969·84
1835	14 „ 15	3	510·10	1530·30
1834	15 „ 16	3	448·59	1345·77
1833	16 „ 17	4	381·35	1525·40
1832	17 „ 18	10	307·98	3079·80
1831	18 „ 19	2	228·76	457·52
1830	19 „ 20	3	142·62	427·86
1829	20 „ 21	1	48·87	48·87
		61		32181·48

Year of Birth.	Daughters' Benefits. Age.	No. of that Age.	Value of each Daughter's Benefits.	Total Value.
1848	1 to 2	1	727·76	727·76
1847	2 „ 3	3	780·98	2342·94
1845	4 „ 5	1	882·56	882·56
1844	5 „ 6	5	917·56	4587·80
1842	7 „ 8	3	956·37	2869·11
1840	9 „ 10	3	965·69	2897·07
1839	10 „ 11	4	964·57	3858·28
1838	11 „ 12	3	952·49	2857·47
1837	12 „ 13	1	928·72	928·72
1836	13 „ 14	4	902·95	3611·80
1835	14 „ 15	1	877·98	877·98
1834	15 „ 16	7	856·57	5995·99
1832	17 „ 18	7	824·87	5774·09
1831	18 „ 19	3	817·93	2453·79
1830	19 „ 20	11	821·57	9036·27
1829	20 „ 21	4	834·89	3339 56
1828	21 „ 22	3	852·17	2556·51
1827	22 „ 23	3	868·43	2605·29
1826	23 „ 24	1	884·31	884·31
1824	25 „ 26	3	914·23	2742·69
1823	26 „ 27	2	927·77	1855·54
1822	27 „ 28	4	940·32	3761·28
1821	28 „ 29	2	952·02	1904·04
1820	29 „ 30	3	962·21	2886·63
1819	30 „ 31	1	970·63	970·63
1817	32 „ 33	1	984·23	984·23
1816	33 „ 34	1	989·80	989·80
1815	34 „ 35	2	994·63	1989·26
1814	35 „ 36	1	998·77	998·77
1807	42 „ 43	1	999·82	999·82
1806	43 „ 44	1	995·39	995·39
1797	52 „ 53	1	932·40	932·40
		91		81097·78

APPENDIX XI.

Showing a separate valuation of the Daughters' Marriage Portion of £300 each, by Table VIII.

Daughters' Ages.	No. of that Age.	Value of £300 on Marriage at the last Birth day.	Ditto at the next Birth day.	Total value at the Ages last Birth day.	Ditto at the Ages next Birth days.
1 to 2	1	·10898	·12247	·10898	·12247
2 „ 3	3	·12247	·13624	·36741	·40872
4 „ 5	1	·15016	·16458	·15016	·16458
5 „ 6	5	·16458	·17977	·82290	·89985
7 „ 8	3	·19581	·21317	·58743	·63951
9 „ 10	3	·23189	·25208	·69567	·75624
10 „ 11	4	·25208	·27393	1·00832	1·09572
11 „ 12	3	·27393	·29766	·82179	·89298
12 „ 13	1	·29766	·32345	·39766	·32345
13 „ 14	4	·32345	·35153	1·29380	1·40612
14 „ 15	1	·35153	·37537	·35153	·37537
15 „ 16	7	·37537	·39511	2·62759	2·76577
17 „ 18	7	·41063	·42183	2·87441	2·95281
18 „ 19	3	·42183	·42170	1·26549	1·26510
19 „ 20	11	·42170	·40806	4·63870	4·48866
20 „ 21	4	·40806	·38485	1·63224	1·53940
21 „ 22	3	·38485	·35163	1·15455	1·05489
22 „ 23	3	·36163	·34022	1·08489	1·02066
23 „ 24	1	·34022	·31746	·34022	·31746
25 „ 26	3	·29646	·27609	·88938	·82827
26 „ 27	2	·27609	·25667	·55218	·51334
27 „ 28	4	·25667	·23777	1·02668	·95108
28 „ 29	2	·23777	·22038	·47554	·44076
29 „ 30	3	·22038	·20502	·66114	·61506
30 „ 31	1	·20502	·19115	·20502	·19115
32 „ 33	1	·17810	·16612	·17810	·16612
33 „ 34	1	·16612	·15449	·16612	·15449
34 „ 35	2	·15449	·14336	·30898	·28672
35 „ 36	1	·14336	·13278	·14336	·13278
42 „ 43	1	·08667	·08210	·08667	·08210
43 „ 44	1	·08210	·07815	·08210	·07815
52 „ 53	1	·03955	·03212	·03955	·03212
	91			27·03856	26·96190

Hence the required value $= \frac{27{\cdot}03856 + 26{\cdot}96190}{2} \times 300 =$ £ 8100·07

And this being deducted from the foregoing value, ... = „ 81097·78

Leaves for the estimated value of the Pensions only, ... £ 72997·71

APPENDIX XII.

Showing the present value at 8 *per Cent. of the Reversionary Benefits to the Children of the Members living on the* 1*st January* 1850.

Years of Children's Births.	Values of Sons' Reversionary Pensions. Age.	No. of that age.	Value of each Pension.	Total Value.
1849	0 to 1	52	107·13	5570·8
1848	1 „ 2	31	112·01	3472·3
1847	2 „ 3	38	114·43	4348·3
1846	3 „ 4	27	115·04	3106·1
1845	4 „ 5	25	113·71	2842·8
1844	5 „ 6	27	110·79	2991·3
1843	6 „ 7	28	106·51	2982·3
1842	7 „ 8	22	100·94	2220·7
1841	8 „ 9	25	94·30	2357·5
1840	9 „ 10	28	86·83	2431·2
1839	10 „ 11	29	78·61	2279·7
1838	11 „ 12	19	69·77	1325·6
1837	12 „ 13	17	60·62	1030·5
1836	13 „ 14	18	51·40	925·2
1835	14 „ 15	18	42·18	759·2
1834	15 „ 16	10	32·98	329·8
1833	16 „ 17	11	24·05	264·6
1832	17 „ 18	11	15·89	174·8
1831	18 „ 19	8	8·93	71·4
1830	19 „ 20	6	3·70	22·2
1829	20 „ 21	4	·78	3·1
		454		39509·4

As this valuation is made up to January 1850, the Children born in 1850 are of course excluded, but in it there are 4 Sons and 4 Daughters of A. R. Young and E. T. Trevor, which were not included in Appendix II., as they were taken from the last paragraph of the Secretary's letter, dated the 22nd of January 1851.

Years of Daughters' Births.	Value of Daughters' Reversionary Benefits. Age.	No. of that age.	Value of each Benefit.	Total Value.
1849	0 to 1	24	161·86	3884·6
1848	1 „ 2	27	173·41	4682·1
1847	2 „ 3	29	182·05	5279·5
1846	3 „ 4	24	188·53	4524·7
1845	4 „ 5	29	192·90	5594·1
1844	5 „ 6	28	195·64	5477·9
1843	6 „ 7	29	197·00	5713·0
1842	7 „ 8	30	197·13	5913·9
1841	8 „ 9	18	196·25	3532·5
1840	9 „ 10	22	194·59	4281·0
1839	10 „ 11	17	192·20	3267·4
1838	11 „ 12	17	189·17	3215·9
1837	12 „ 13	18	185·79	3344·2
1836	13 „ 14	17	182·18	3097·1
1835	14 „ 15	16	179·18	2866·9
1834	15 „ 16	8	177·48	1419·8
1833	16 „ 17	11	177·17	1948·9
1832	17 „ 18	10	178·60	1786·0
1831	18 „ 19	9	183·15	1648·4
1830	19 „ 20	6	192·31	1153·9
1829	20 „ 21	12	205·93	2471·2
1828	21 „ 22	9	221·82	1996·4
1826	23 „ 24	2	252·73	505·5
1825	24 „ 25	4	272·02	1088·1
1824	25 „ 26	2	289·44	578·9
1822	27 „ 28	1	325·17	325·2
1821	28 „ 29	1	343·60	343·6
1820	29 „ 30	3	361·95	1085·9
1819	30 „ 31	1	380·28	380·3
1817	32 „ 33	2	417·21	834·4
1816	33 „ 34	3	435·93	1307·8
1815	34 „ 35	2	454·93	909·9
1814	35 „ 36	1	474·03	474·0
1813	36 „ 37	1	493·23	493·2
1811	38 „ 39	1	530·15	530·2
		434		85956·4

APPENDIX XIII.

Showing the present value of the future subscriptions of Married Members on the 1st of January 1850, and the present value of the Reversionary Pensions to the Wives of the Members then living, computed at 8 per Cent. from Table XVIII.

Years of Members' Births.	Age on 1st January 1850.	No. of that age.	Value of each £1 future Subscription.	Value of each £1 Reversionary Pension.	Total value of future Subscriptions at £1 each Member.	Total value of Wives' Reversionary Pensions at £1 each.
1780	69 to 70	1	4·566	2·791	4·566	2·791
1781	68 „ 69	2	4·728	2·780	9·456	5·560
1782	67 „ 68	1	4·886	2·769	4·886	2·769
1784	65 „ 66	1	5·190	2·742	5·190	2·742
1785	64 „ 65	3	5·336	2·726	16·008	8·178
1787	62 „ 63	1	5·611	2·698	5·611	2·698
1788	61 „ 62	5	5·742	2·683	28·710	13·415
1789	60 „ 61	1	5·879	2·674	5·879	2·674
1790	59 „ 60	3	6·000	2·657	18·000	7·971
1791	58 „ 59	3	6·104	2·632	18·312	7·896
1792	57 „ 58	1	6·224	2·614	6·224	2·614
1793	56 „ 57	1	6·342	2·594	6·342	2·594
1794	55 „ 56	4	6·459	2·574	25·836	10·296
1795	54 „ 55	2	6·573	2·534	13·146	5·108
1796	53 „ 54	1	6·683	2·533	6·683	2·533
1797	52 „ 53	2	6·791	2·511	13·582	5·022
1798	51 „ 52	4	6·896	2·491	27·584	9·964
1799	50 „ 51	5	7·001	2·468	35·005	12·340
1800	49 „ 50	5	7·107	2·442	35·535	12·210
1801	48 „ 49	3	7·215	2·412	21·645	7·236
1802	47 „ 48	8	7·321	2·383	58·568	19·064
1803	46 „ 47	4	7·426	2·356	29·704	9·424
1804	45 „ 46	3	7·528	2·328	22·584	6·984
1805	44 „ 45	10	7·628	2·300	76·280	23·000
1806	43 „ 44	5	7·724	2·274	38·620	11·370
1807	42 „ 43	15	7·817	2·246	117·255	33·690
1808	41 „ 42	15	7·910	2·218	118·650	33·270
1809	40 „ 41	12	8·002	2·188	96·024	26·256
1810	39 „ 40	8	8·092	2·158	64·736	17·264
1811	38 „ 39	16	8·180	2·127	130·880	34·032
1812	37 „ 38	16	8·269	2·097	132·304	33·552
1813	36 „ 37	9	8·357	2·066	75·213	18·594
1814	35 „ 36	4	8·446	2·037	33·784	8·148
1815	34 „ 35	5	8·532	2·007	42·660	10·035
1816	33 „ 34	8	8·619	1·978	68·952	15·824
		187			1414·414	427·118

APPENDIX XIII.—*(Continued.)*

If from the total number of Members, 263 and the total value of subscriptions, 2103·539
We deduct for the Retired Annuitants, 27 ..... 166·702

There remains, ... 236 ..... 1936·837 average = 8·207

Year of Members' Births.	Age on 1st January 1850.	No. of that age.	Value of each £1 future subscription.	Value of each £1 Reversionary Pension.	Total value of future subscriptions at £1 each.	Total value of Wives' Pensions at £1 each.
	Bt. up.	187			1414·414	427·118
1817	32 to 33	7	8·705	1·950	60·935	13·650
1818	31 „ 32	4	8·793	1·921	35·172	7·684
1819	30 „ 31	6	8·876	1·890	53·256	11·340
1820	29 „ 30	6	8·954	1·860	53·724	11·160
1821	28 „ 29	12	9·030	1·828	108·360	21·936
1822	27 „ 28	9	9·105	1·795	81·945	16·155
1823	26 „ 27	5	9·177	1·763	45·885	8·815
1824	25 „ 26	12	9·248	1·732	110·976	20·784
1825	24 „ 25	4	9·315	1·702	37·260	6·808
1826	23 „ 24	4	9·386	1·674	37·544	6·696
1827	22 „ 23	3	9·460	1·647	28·380	4·941
1828	21 „ 22	1	9·533	1·620	9·533	1·620
		260			2077·384	558·707
Add 3 omitted in Appendix IV.,		3			26·155	5·807
		263			2103·539	564·514
						300
		Values of Pensions £300 each, £169354·2				
		MARRIED ANNUITANTS.				
1781	68 to 69	1	4·728	2·780	4·728	2·780
1782	67 „ 68	1	4·886	2·769	4·886	2·769
1784	65 „ 66	1	5·190	2·742	5·190	2·742
1785	64 „ 65	3	5·336	2·726	16·008	8·178
1787	62 „ 63	1	5·611	2·698	5·611	2·698
1788	61 „ 62	2	5·742	2·683	11·484	5·366
1789	60 „ 61	1	5·879	2·674	5·879	2·674
1790	59 „ 60	3	6·000	2·657	18·000	7·971
1791	58 „ 59	1	6·104	2·632	6·104	2·632
1792	57 „ 58	1	6·224	2·614	6·224	2·614
1793	56 „ 57	1	6·342	2·594	6·342	2·594
1794	55 „ 56	2	6·459	2·574	12·918	5·148
1795	54 „ 55	1	6·573	2·554	6·573	2·554
1797	52 „ 53	1	6·791	2·511	6·791	2·511
1798	51 „ 52	1	6·896	2·491	6·896	2·491
1799	50 „ 51	2	7·001	2·468	14·002	4·936
1800	49 „ 50	2	7·107	2·442	14·214	4·884
1803	46 „ 47	2	7·426	2·356	14·852	4·712
		27			166·702	70·254
						300
		Values of Pensions of £300 each, = £21076·2				

APPENDIX XIV.

Showing the present value of the future Subscription of Married Members on the 1st January 1850, and the present value of the Reversionary Pensions to their Wives, computed at 5 per Cent., from Table XIX.

Year of Members' Births.	Age on 1st January 1850.	No. of that age.	Value of each £1 future subscription.	Value of each £1 Reversionary Pension.	Total value of future subscriptions of £1 each.	Total value of Reversionary Pensions of £1 each.
1780	69 to 70	1	5·127	3·763	5·127	3·763
1781	68 „ 69	2	5·331	3·786	10·662	7·572
1782	67 „ 68	1	5·534	3·807	5·534	3·807
1784	65 „ 66	1	5·931	3·843	5·931	3·843
1785	64 „ 65	3	6·123	3·858	18·369	11·574
1787	62 „ 63	1	6·494	3·886	6·494	3·886
1788	61 „ 62	5	6·671	3·900	33·355	19·500
1789	60 „ 61	1	6·845	3·913	6·845	3·913
1790	59 „ 60	3	7·016	3·922	21·048	11·766
1791	58 „ 59	3	7·183	3·927	21·549	11·781
1792	57 „ 58	1	7·351	3·933	7·351	3·933
1793	56 „ 57	1	7·518	3·936	7·518	3·936
1794	55 „ 56	4	7·685	3·938	30·740	15·752
1795	54 „ 55	2	7·849	3·941	15·698	7·882
1796	53 „ 54	1	8·011	3·940	8·011	3·940
1797	52 „ 53	2	8·167	3·938	16·334	7·876
1798	51 „ 52	4	8·323	3·935	33·292	15·740
1799	50 „ 51	5	8·979	3·931	44·895	19·655
1800	49 „ 50	5	8·638	3·920	43·190	19·600
1801	48 „ 49	3	8·799	3·904	26·397	11·712
1802	47 „ 48	8	8·959	3·892	71·672	31·136
1803	46 „ 47	4	9·117	3·876	36·468	15·504
1804	45 „ 46	3	9·274	3·858	27·822	11·574
1805	44 „ 45	10	9·377	3·842	93·770	38·420
1806	43 „ 44	5	9·578	3·824	47·890	19·120
1807	42 „ 43	15	9·726	3·806	145·890	57·090
1808	41 „ 42	15	9·873	3·785	148·095	56·775
1809	40 „ 41	12	10·019	3·762	120·228	45·144
1810	39 „ 40	8	10·165	3·735	81·320	29·880
1811	38 „ 39	16	10·308	3·708	164·928	59·328
1812	37 „ 38	16	10·451	3·680	167·216	58·880
1813	36 „ 37	9	10·595	3·652	95·355	32·868
1814	35 „ 36	5	10·740	3·622	53·700	18·110
1815	34 „ 35	6	10·884	3·594	65·304	21·564
1816	33 „ 34	8	11·026	3·564	88·208	28·512
		189			1776·206	715·336

APPENDIX XIV.—*Continued.*

From the total No. 263 and value, 2651·031
Deducting,..... 27 ..... 198·123
There remains, ... 236 — 2452·908 average 10·394

Year of Members' Births.	Age on 1st January 1850.	No. of that Age.	Value of each £1 future Subscription.	Value of each £1 Reversionary Pension.	Total value of future subscriptions at £1 each.	Total value of Reversionary Pensions at £1 each.
	Bt. up	189			1776·206	715·336
1817	32 to 33	7	11·172	3·535	78·204	24·745
1818	31 „ 32	4	11·316	3·504	45·264	14·016
1819	30 „ 31	6	11·457	3·470	68·742	20·820
1820	29 „ 30	6	11·592	3·434	69·552	20·604
1821	28 „ 29	12	11·724	3·395	140·688	40·740
1822	27 „ 28	9	11·855	3·354	106·695	30·186
1823	26 „ 27	6	11·983	3·314	71·898	19·884
1824	25 „ 26	12	12·110	3·274	145·320	39·288
1825	24 „ 25	4	12·234	3·235	48·936	12·940
1826	23 „ 24	4	12·361	3·198	49·444	12·792
1827	22 „ 23	3	12·488	3·163	37·464	9·489
1828	21 „ 22	1	12·618	3·126	12·618	3·126
		263			2651·031	963·966
						300

Values of Pensions of £300 each = 289189·8

In this Appendix the three Members named in the Secretary's Letter of 14th January 1851, (and not included in Appendix II.) are included among the respective classes to which they belong.

MARRIED ANNUITANTS.

1781	68 to 69	1	5·331	3·786	5·331	3·786
1782	67 „ 68	1	5·534	3·807	5·534	3·807
1784	65 „ 66	1	5·931	3·843	5·931	3·843
1785	64 „ 65	3	6·123	3·858	18·369	11·574
1787	62 „ 63	1	6·494	3·886	6·494	3·886
1788	61 „ 62	2	6·671	3·900	13·342	7·800
1789	60 „ 61	1	6·845	3·913	6·845	3·913
1790	59 „ 60	3	7·016	3·922	21·048	11·766
1791	58 „ 59	1	7·183	3·927	7·183	3·927
1792	57 „ 58	1	7·351	3·933	7·351	3·933
1793	56 „ 57	1	7·518	3·936	7·518	3·936
1794	55 „ 56	2	7·685	3·938	15·370	7·876
1795	54 „ 55	1	7·849	3·941	7·849	3·941
1797	52 „ 53	1	8·167	3·938	8·167	3·938
1798	51 „ 52	1	8·323	3·935	8·323	3·935
1799	50 „ 51	2	8·979	3·931	17·958	7·862
1800	49 „ 50	2	8·638	3·920	17·276	7·840
1803	46 „ 47	2	9·117	3·876	18·234	7·752
		27			198·123	105·315
						300

Values of Pensions of £300 each = £31594·5

APPENDIX XV.

Showing the present value at 8 *per Cent. of the Reversionary Benefits to the Children of the Retired Annuitants on the* 1*st January* 1850.

Year of Sons' Births.	Values of Sons' Reversionary Pensions. Age.	No. of that Age.	Value of each Pension.	Total Value.
1829	20 to 21	3	·78	2·34
1830	19 „ 20	3	3·70	11·10
1831	18 „ 19	6	8·93	53·58
1832	17 „ 18	4	15·89	63·56
1833	16 „ 17	2	24·05	48·10
1834	15 „ 16	5	32·98	164·90
1835	14 „ 15	3	42·18	126·54
1836	13 „ 14	3	51·40	154·20
1837	12 „ 13	3	60·62	181·86
1838	11 „ 12	4	69·77	279·08
1839	10 „ 11	6	78·61	471·66
1840	9 „ 10	4	86·83	347·32
1841	8 „ 9	3	94·30	282·90
1843	6 „ 7	2	106·51	213·02
1844	5 „ 6	1	110·79	110·79
1845	4 „ 5	2	113·71	227·42
1847	2 „ 3	1	114·43	114·43
1849	0 „ 1	1	107·13	107·13
		56		2959·93

Year of Daughters' Births.	Values of Daughters' Reversionary Pensions. Age.	No. of that Age.	Value of each Daughter's Benefits.	Total Value.
1811	38 to 39	1	530·15	530·15
1813	36 „ 37	1	493·23	493·23
1814	35 „ 36	1	474·03	474·03
1815	34 „ 35	2	454·93	909·86
1816	33 „ 34	2	435·93	871·86
1817	32 „ 33	1	417·21	417·21
1820	29 „ 30	1	361·95	361·95
1821	28 „ 29	1	343·60	343·60
1822	27 „ 28	1	325·17	325·17
1825	24 „ 25	3	272·02	816·06
1826	23 „ 24	2	252·73	505·46
1828	21 „ 22	7	221·82	1552·74
1829	20 „ 21	5	205·93	1029·65
1830	19 „ 20	2	192·31	384·62
1831	18 „ 19	3	183·15	549·45
1832	17 „ 18	4	178·60	714·40
1835	14 „ 15	6	179·18	1075·08
1836	13 „ 14	5	182·18	910·90
1837	12 „ 13	3	185·79	557·37
1838	11 „ 12	3	189·17	567·51
1839	10 „ 11	2	192·20	384·40
1840	9 „ 10	1	194·59	194·59
1841	8 „ 9	1	196·25	196·25
1842	7 „ 8	2	197·13	394·26
1843	6 „ 7	2	197·00	394·00
1844	5 „ 6	1	195·64	195·64
1845	4 „ 5	1	192·90	192·90
1848	1 „ 2	1	173·41	173·41
1849	0 „ 1	1	161·86	161·86
		66		15677·61

Sons' Pensions as above,... £ 2959·9
Daughters' ditto as annexed, 15677·6

Both together, ... £ 18637·5

APPENDIX XVI.

Showing the Present value of the Future Subscriptions considered as payable during the whole continuance of the Members' lives.

Year of Members' Births.	Age last Birthday.	No. of that Age.	Value of £1 Annuity.	Total value of Annuities of £1 each.	Year of Members' Births.	Age in 1849.	No. of that Age.	Value of £1 Annuity.	Total value of Annuities of £1 each.
1778	71	1	4·978	4·978	Bt.	up	141		1195·087
1780	69	1	5·370	5·370	1810	39	21	9·019	189·399
1781	68	1	5·559	5·559	1811	38	25	9·093	227·325
1789	60	1	6·860	6·860	1812	37	20	9·164	183·280
1790	59	1	6·996	6·996	1813	36	13	9·231	120·003
1791	58	2	7·128	14·256	1814	35	11	9·296	102·256
1794	55	2	7·499	14·998	1815	34	8	9·359	74·872
1795	54	2	7·614	15·228	1816	33	9	9·418	84·762
1796	53	1	7·725	7·725	1817	32	12	9·476	113·712
1797	52	5	7·833	39·165	1818	31	7	9·531	66·717
1798	51	2	7·937	15·874	1819	30	9	9·584	86·256
1799	50	4	8·041	32·164	1820	29	12	9·635	115·620
1800	49	3	8·146	24·438	1821	28	20	9·685	193·700
1801	48	4	8·249	32·996	1822	27	18	9·732	175·176
1802	47	12	8·348	100·176	1823	26	20	9·778	195·560
1803	46	5	8·443	42·215	1824	25	28	9·823	275·044
1804	45	7	8·533	59·731	1825	24	23	9·865	226·895
1805	44	13	8·620	112.060	1826	23	27	9·907	267·489
1806	43	10	8·703	87·030	1827	22	30	9·947	298·410
1807	42	21	8·783	184·443	1828	21	12	9·986	119·832
1808	41	21	8·863	186·123	1829	20	13	10·030	130·390
1809	40	22	8·941	196·702	1830	19	2	10·081	20·162
		141		1195·087			481		4461·947

Since it appears from Statement No. 7 that 2½ per Cent. on the annual allowances of 481 Members, amounted to 12 × 17032-14-4 = Rs. 204394-12, it follows that the proportional amount for 491 Members = Rs. 2,08,644.

If we divide the sum of the values of Annuities of £1 each of the 481 Members comprised in the above by the number of Members, we have $\frac{4461\cdot947}{481}$ = 9·276 for the average value of each Annuity, if payable yearly, and by adding to this ·458 agreeably to Art. 34 we have 9·276 + ·458 = 9·734 for the average value of the future subscriptions that are payable by monthly instalments.

In comparing your Statement No. 5, with the Statement No. 7, for the purpose of finding the dates of Birth of those entered in the latter, I found that G. C. Fletcher was entered twice in the latter, which therefore only contained 481 instead of 482 Members as stated in Art. 6. I also found that three of the older Members, Grant, Turner and Cathcart, numbered 5, 20 and 51, were not contained in Statement No. 7. And I therefore conclude that they must have retired or otherwise gone off before the latter Statement was made up. I further observed that, of the names entered in Statement No. 4, the following 5 Members were designated as non-subscribers, viz., C. Tucker, F. W. Russell, H. Swetenham, H. S. Oldfield and J. W. H. Campbell, and that the following Members were contained in Statement 4, and not entered in Statement 7, viz., 414, 415, 422, 492, 494, 495, 496, 497, 498 and 499, making in all 10 additional Members, which, with the 481 contained in Statement 7, make 491 Members.

F. CARBERY, MILITARY ORPHAN PRESS.

Addenda to Mr. Davies' Report on the Bengal Civil Fund.

To the Secretary of the Bengal Civil Fund.

Sir,

On the 27th ultimo, I received from Messrs. Coutts and Co. the following Extract from your letter to them dated 10th June 1851:

"From a communication received from the Hon'ble Court "of Directors, it appears that a rate of only 4 per cent. "interest is to be allowed on the additional Subscriptions of "the Fund levied under the New Rules, and you are requested "to inform the Actuary of this, in case it should make any "alteration in his calculations necessary."

My Report, dated 21st June 1851, in which the additional Subscriptions are, according to my original instructions, assumed to bear an interest of 5 per cent., must have reached India before the receipt of the above Extract, but inasmuch as the said reduction of interest must make a material alteration in the required Subscriptions, I thought it necessary to re-compute at 4 per cent. the Tables numbered IX. X. XVII. and XIX., and the Appendix No. XIV. in the said Report, in the manner therein explained, and you will find annexed the results of that re-computation.

By referring to the latter part of Art. 44 of the Report and to the last of the Tables now sent in lieu of Appendix XIV., you will find that $\frac{2686{\cdot}301}{1063{\cdot}017} = 2{\cdot}52705$ instead of 2·8567 obtained in the said Art.

—that 2·52705 : 3·91866 :: 1 : 1·55068 instead of 1·3717, and 3·91866 : 2·52705 :: 1 : ·644876 instead of ·729.

By referring also to the balance exhibited in Art. 46, and multiplying it by 1·55068, instead of 1·3717, we have 172912 × 1·55068 = 268131 Rupees interest of 237184 for the estimated amount of 4 per cent. Subscription to be levied under the New Rules.

If, therefore, to the 264681 Rupees obtained in Art. 46, we add the 268131 Rupees now obtained, (instead of the 237184 added to it in Art. 47,) we shall have 5,32,812 Rupees for the total Annual Subscriptions required to provide for the objects mentioned in said Report.

Taking, therefore, the basis stated in Art. 47, as the ground of my calculation, I am of opinion that in order to place the Fund on a solid foundation, you cannot charge less than

3¼ per cent. on the Salaries of the whole Service, ...	= 1¼ × 250373 =	2,71,237 Rs.
and 3¼ per cent. additional on those of Married Members, ...	= 1¼ × 160557 =	1,73,937 „
To which being added Subscriptions for Children as before, ...		36,149 „
The Honorable Court's Gratuity, ...		25,600 „
And the Estimated Deductions for Minima, ...		15,700 „
Making together, ...		5,22,623 „
And this sum being taken from the above estimate of		5,32,812 „
Must still leave an Estimated Deficit of		10,189 „

to be made up in the manner suggested in Art. 49 of the said Report.

I would also remark, that in this estimate it is assumed that the Honorable Court will allow an interest at 8 per cent. on the whole of the first item, say on 2,71,237 Rupees.

GRIFFITH DAVIES.

Guardian Assurance Office,
24th September, 1851.

TABLE I.

Showing the values of Annuities on the Lives of the Widows and Children connected with the Bengal Civil Fund, computed at 4 per Cent. according to the Rate of Mortality exhibited by Table III. of the late Report.

Age.	D	N	A	A + ¾
0	10000·00	175493·17	17·549	18·299
1	9004·81	166488·36	18·489	19·239
2	8340·42	158147·94	18·962	19·712
3	7785·83	150362·11	19·312	20·062
4	7335·93	143026·18	19·497	20·247
5	6950·22	136075·96	19·579	20·329
6	6607·82	129468·14	19·593	20·343
7	6299·72	123168·42	19·551	20·301
8	6009·20	117159·22	19·497	20·247
9	5736·62	111422·60	19·423	20·173
10	5480·18	105942·42	19·332	20·082
11	5236·92	100705·50	19·230	19·980
12	5004·90	95700·60	19·121	19·871
13	4782·97	90917·63	19·009	19·759
14	4570·14	86347·49	18·894	19·644
15	4366·60	81980·89	18·775	19·525
16	4171·43	77809·46	18·653	19·403
17	3983·26	73826·20	18·534	19·284
18	3801·43	70024·77	18·421	19·171
19	3626·27	66398·50	18·310	19·060
20	3458·50	62940·00	18·199	18·949
21	3297·40	59642·60	18·088	18·838
22	3143·15	56499·45	17·976	18·726
23	2995·88	53503·57	17·859	18·609
24	2854·91	50648·66	17·741	18·491
25	2719·60	47929·06	17·624	18·374
26	2590·47	45338·59	17·502	18·252
27	2467·25	42871·34	17·376	18·126
28	2349·02	40522·32	17·251	18·001
29	2236·22	38286·10	17·121	17·871
30	2128·32	36157·78	16·988	17·738
31	2025·42	34132·36	16·852	17·602
32	1926·99	32205·37	16·713	17·463
33	1832·87	30372·50	16·571	17·321
34	1743·13	28629·37	16·424	17·174
35	1657·59	26971 78	16·272	17·022
36	1576·05	25395·73	16·114	16·864
37	1498·09	23897·64	15·952	16·702
38	1423·80	22473·84	15·784	16·534

TABLE I.—*(Continued.)*

Age.	D	N	A	A + ¾
39	1353·01	21120·83	15·610	16·360
40	1285·77	19835·06	15·427	16·177
41	1221·49	18613·57	15·239	15·989
42	1160·24	17453·31	15·043	15·793
43	1101·94	16351·37	14·839	15·589
44	1046·20	15305·17	14·629	15·379
45	993·123	14312·05	14·411	15·161
46	942·415	13369·63	14·187	14·937
47	894·139	12475·49	13·953	14·703
48	847·878	11627·61	13·714	14·464
49	803·852	10823·76	13·465	14·215
50	761·678	10062·08	13·210	13·960
51	721·288	9340·797	12·951	13·701
52	682·748	8658·049	12·681	13·431
53	645·980	8012·069	12·403	13·153
54	610·550	7401·519	12·123	12·873
55	576·774	6824·745	11·833	12·583
56	544·248	6280·497	11·540	12·290
57	512·944	5767·553	11·244	11·994
58	482·831	5284·722	10·945	11·695
59	453·978	4830·744	10·641	11 391
60	426·251	4404·493	10·383	11·083
61	399·711	4004·782	10·019	10·769
62	374·230	3630·552	9·701	10·451
63	349·780	3280·772	9·380	10·130
64	326·170	2954·602	9·058	9·808
65	303·546	2651·056	8·734	9·484
66	281·654	2369·402	8·412	9·162
67	260·635	2108·767	8·091	8·841
68	240·400	1868·367	7·772	8·522
69	221·069	1647·298	7·451	8·201
70	202·484	1444·814	7·135	7·885
71	184·693	1260·121	6·823	7·573
72	167·733	1092·388	6·513	7·263
73	151·576	940·8121	6·207	6·957
74	136·195	804·6171	5·908	6·658
75	121·667	682·9501	5·613	6·363
76	107·953	574·9971	5·326	6·076
77	95·1142	479·8829	5·045	5·795
78	83·1503	396·7326	4·771	5·521
79	72·0563	324·6763	4·506	5·256
80	61·8226	262·8537	4·252	5·002
81	52·5618	210·2919	4·001	4·751
82	44·1625	166·1294	3·762	4·512
83	36·7173	129·4121	3·525	4·275

TABLE I.—*(Continued.)*

Age.	D	N	A	A + ¾
84	30·1131	99·2990	3·297	4·047
85	24·3906	74·9084	3·071	3·821
86	19·4409	55·4675	2·853	3·603
87	15·2644	40·2031	2·634	3·384
88	11·7926	28·4105	2·409	3·159
89	8·9310	19·4795	2·181	2·931
90	6·6531	12·8264	1·928	2·678
91	4·8472	7·9792	1·646	2·396
92	3·4143	4·5649	1·337	2·087
93	2·2669	2·2980	1·014	1·764
94	1.3028	·99520	·764	1·514
95	·65042	·34478	·530	1·280
96	·27796	·06682	·240	·990
97	·06682	·00000	·000	·750

TABLE II.

Showing at 4 per Cent. the values of Annuities on the Lives of Daughters and Widows to cease on Death or Marriage.

Age.	D	N	A	A + ¾
0	40280·0	545842·5	13·551	14·301
1	36271·2	509571·3	14·049	14·799
2	33517·9	476053·4	14·203	14·953
3	31289·1	444764·3	14·215	14·965
4	29481·3	415283·0	14·086	14·836
5	27931·6	387351·4	13·868	14·618
6	26555·4	360796·0	13·587	14·337
7	25317·4	335478·6	13·251	14·001
8	24150·0	311328·6	12·891	13·641
9	23054·7	288273·9	12·504	13·254
10	22024·1	266249·8	12·089	12·839
11	21046·4	245203·4	12·651	12·401
12	20113·9	225089·5	11·191	11·941
13	19222·0	205867·5	10·710	11·460
14	18366·6	187500 9	10·209	10·959
15	17373·1	170127·8	9·793	10·543
16	16264·5	153863·3	9·460	10·210
17	15064·9	138798·4	9·213	9·963

TABLE II.—*(Continued.)*

Age.	D	N	A	A + ¾
18	13802·3	124996·1	9 056	9·806
19	12376·3	112619·8	9·099	9·849
20	10859·3	101760·5	9·371	10·121
21	9420·76	92339·75	9·802	10·552
22	8226·44	84113·31	10·225	10·975
23	7245·06	76868·25	10·610	11·360
24	6400·33	70467·92	11·010	11·760
25	5694·27	64773·65	11·375	12·125
26	5093·29	59680·36	11·717	12·467
27	4579·37	55100·99	12·032	12·782
28	4133·12	50967·87	12·332	13·082
29	3749·70	47218·17	12·593	13·343
30	3418·95	43799·22	12·811	13·561
31	3130·03	40669·19	12·993	13·743
32	2873·69	37795·50	13·152	13·902
33	2645·83	35149·67	13·285	14·035
34	2440·76	32708·91	13·401	14·151
35	2255·91	30453·00	13·499	14·249
36	2089·22	28363·78	13·576	14·326
37	1938·10	26425·68	13·635	14·385
38	1801·61	24624·07	13·668	14·418
39	1677·73	22946·34	13·677	14·427
40	1565·71	21380·63	13·655	14·405
41	1463·63	19917 00	13·608	14·358
42	1370·75	18546 25	13·530	14·280
43	1284·88	17261·37	13 434	14·184
44	1205·38	16055·99	13·320	14·070
45	1131·62	14924·37	13·188	13·938
46	1063·07	13861·30	13·039	13·789
47	998·605	12862·69	12·881	13·631
48	937·368	11925·32	12·722	13·472
49	878·925	11046·40	12·568	13·318
50	822·888	10223·51	12·424	13·174
51	769·049	9454·463	12·294	13·044
52	719·305	8735·158	12 144	12 894
53	673·001	8062·157	11·979	12·729
54	629·795	7432·362	11·801	12·551
55	589·612	6842·750	11·606	12·356
56	552·478	6290·272	11·386	12·136
57	518·076	5772·196	11·142	11·892
58	485·710	5286·486	10·884	11·634
59	455·362	4831·124	10·609	11·359
60	426·631	4404·493	10·324	11·074
61	399·711	4004·782	10·019	10·769
62	374·230	3630·552	9·701	10·451

TABLE II.—*(Continued.)*

Age.	D	N	A	A + ¾
63	349·780	3280·772	9·380	10·130
64	326·170	2954·602	9·058	9·808
65	303·546	2651·056	8·734	9·484
66	281·654	2369·402	8·412	9·162
67	260·635	2108·767	8·091	8·841
68	240·400	1868·367	7·772	8·522
69	221·069	1647·298	7·451	8·201
70	202·484	1444·814	7·135	7·885
71	184·693	1260·121	6·823	7·573
72	167·733	1092·388	6·513	7·263
73	151·576	940·8121	6·207	6·957
74	136·195	804·6171	5·908	6·658
75	121·667	682·9501	5·613	6·363
76	107·953	574·9971	5·326	6·076
77	95·1142	479·8829	5·045	5·795
78	83·1503	396·7326	4·771	5·521
79	72·0563	324·6763	4·506	5·256
80	61·8226	262·8537	4·252	5·002
81	52·5618	210·2919	4·001	4·751
82	44·1625	166·1294	3·762	4·512
83	36·7173	129·4121	3·525	4·275
84	30·1131	99·2990	3·297	4·047
85	24·3906	74·9084	3·071	3·821
86	19·4409	55·4675	2·853	3·603
87	15·2644	40·2031	2·634	3·384
88	11·7926	28·4105	2·409	3·159
89	8·9310	19·4795	2·181	2·931
90	6·6531	12·8264	1·928	2·678
91	4·8472	7·9792	1·646	2·396
92	3·4143	4·5649	1·337	2·087
93	2·2669	2·7980	1·014	1·764
94	1·3028	·99520	·764	1·514
95	·65042	·34478	·530	1·280
96	·27796	·06682	·240	·990
97	·06682	·00000	·000	·750

TABLE III.

Showing at 4 per Cent. the values of Annuities payable by Half-yearly Instalments in advance on the Lives of Widows and Daughters.

Age.	Annuity to cease on Death.	Ditto to cease on Death or Marriage.	Ditto to be reduced to one-half on Marriage.
0 to 1	18·769	14·550	16·659
1 „ 2	19·475	14·876	17·176
2 „ 3	19·887	14·959	17·423
3 „ 4	20·155	14·900	17·527
4 „ 5	20·288	14·727	17·508
5 „ 6	20·336	14·478	17·407
6 „ 7	20·322	14·169	17·245
7 „ 8	20·274	13·821	17·048
8 „ 9	20·210	13·447	16·828
9 „ 10	20·127	13·047	16·587
10 „ 11	20·031	12·620	16·326
11 „ 12	19·926	12·171	16·048
12 „ 13	19·815	11·700	15·758
13 „ 14	19·701	11·210	15·455
14 „ 15	19·585	10·751	15·168
15 „ 16	19·464	10·376	14·920
16 „ 17	19·343	10·087	14·715
17 „ 18	19·228	9·884	14·556
18 „ 19	19·115	9·828	14·472
19 „ 20	19·005	9·985	14·495
20 „ 21	18·893	10·336	14·614
21 „ 22	18·782	10·764	14·773
22 „ 23	18·668	11·167	14·918
23 „ 24	18·550	11·560	15·055
24 „ 25	18·432	11·943	15·187
25 „ 26	18·313	12·296	15·305
26 „ 27	18·189	12·624	15·406
27 „ 28	18·064	12·932	15·498
28 „ 29	17·936	13·213	15·575
29 „ 30	17·804	13·452	15·628
30 „ 31	17·670	13·652	15·661
31 „ 32	17·533	13·822	15·677
32 „ 33	17·392	13·969	15·681
33 „ 34	17·247	14·093	15·670
34 „ 35	17·098	14·200	15·649
35 „ 36	16·943	14·287	15·615
36 „ 37	16·783	14·356	15·569
37 „ 38	16·618	14·401	15·510
38 „ 39	16·447	14·423	15·435
39 „ 40	16·269	14·416	15·342
40 „ 41	16·083	14·381	15·232
41 „ 42	15·891	14·319	15·105

TABLE III.—*(Continued.)*

Age.	Annuity to cease on Death.	Ditto to cease on Death or Marriage.	Ditto to be reduced to one-half on Marriage.
42 to 43	15·691	14·232	14·962
43 „ 44	15·484	14·127	14·805
44 „ 45	15·270	14·004	14·637
45 „ 46	15·049	13·864	14·457
46 „ 47	14·820	13·710	14·265
47 „ 48	14·583	13·551	14·067
48 „ 49	14·340	13·395	13·867
49 „ 50	14·087	13·246	13·667
50 „ 51	13·831	13·109	13·470
51 „ 52	13·566	12·969	13·268
52 „ 53	13·292	12·812	13·052
53 „ 54	13·013	12·640	12·826
54 „ 55	12·728	12·453	12·591
55 „ 56	12·436	12·246	12·341
56 „ 57	12·142	12·014	12·078
57 „ 58	11·845	11·763	11·804
58 „ 59	11·543	11·497	11·520
59 „ 60	11·237	11·216	11·226
60 „ 61	10·926	10·922	10·924
61 „ 62	10·610	10·610	10·610
62 „ 63	10·290	10·290	10·290
63 „ 64	9·969	9·969	9·969
64 „ 65	9·646	9·646	9·646
65 „ 66	9·323	9·323	9·323
66 „ 67	9·002	9·002	9·002
67 „ 68	8·681	8·681	8·681
68 „ 69	8·362	8·362	8·362
69 „ 70	8·043	8·043	8·043
70 „ 71	7·729	7·729	7·729
71 „ 72	7·418	7·418	7·418
72 „ 73	7·110	7·110	7·110
73 „ 74	6·807	6·807	6·807
74 „ 75	6·511	6·511	6·511
75 „ 76	6·219	6·219	6·219
76 „ 77	5·936	5·936	5·936
77 „ 78	5·658	5·658	5·658
78 „ 79	5·388	5·388	5·388
79 „ 80	5·129	5·129	5·129
80 „ 81	4·877	4·877	4·877
81 „ 82	4·631	4·631	4·631
82 „ 83	4·394	4·394	4·394
83 „ 84	4·161	4·161	4·161
84 „ 85	3·934	3·934	3·934
85 „ 86	3·712	3·712	3·712
86 „ 87	3·493	3·493	3·493

TABLE III.—*(Continued.)*

Age.	Annuity to cease on Death.	Ditto to cease on Death or Marriage.	Ditto to be reduced to one-half on Marriage.
87 to 88	3·272	3·272	3·272
88 „ 89	3·045	3·045	3·045
89 „ 90	2·804	2·804	2·804
90 „ 91	2·537	2·537	2·537
91 „ 92	2·242	2·242	2·242
92 „ 93	1·925	1·925	1·925
93 „ 94	1·639	1·639	1·639
94 „ 95	1·397	1·397	1·397
95 „ 96	1·135	1·135	1·135
96 „ 97	·870	·870	·870

TABLE IV.

For determining the present values of Annuities on the Joint Lives of Members and their Wives, and of Reversionary Pensions to the Wives after the Deaths of their respective Husbands, such Pensions to be payable by Half-yearly Instalments in advance, and to be reduced to one-half on Re-marriage. Computed at 4 per Cent., according to the Rates of Mortality exhibited by Tables I. II. and III. in the late Report, and the Rate of Marriage exhibited by Table IV. in the said Report.

Ages.		D	N	P	K	AB	Pension.
H	W						
20	13	516870	7192161	92068·6	2065865	13·915	3·996
21	14	488262	6703899	94968·7	1973797	13·730	4·043
22	15	460390	6243509	94618·8	1878828	13·561	4·081
23	16	433462	5810047	90429·6	1784209	13·404	4·116
24	17	407921	5402126	86582·1	1693780	13·243	4·152
25	18	383525	5018601	83260·7	1607197	13·085	4·191
26	19	360240	4658361	79586·9	1523937	12·931	4·230
27	20	338264	4320097	76501·2	1444350	12·771	4·270
28	21	317377	4002720	73724·5	1367849	12·612	4·310
29	22	297681	3705039	71906·0	1294124	12·446	4·347
30	23	278913	3426126	69169·2	1222218	12·284	4 382
31	24	261231	3164895	66438·7	1153049	12·115	4·414
32	25	244578	2920317	64672·3	1086610	11·940	4·443
33	26	228841	2691476	61943·2	1021938	11·761	4·466
34	27	213812	2477664	59285·8	959994·8	11 588	4·490

TABLE IV.—*(Continued.)*

Ages.		D	N	P	K	AB	Pension.
H	W						
35	28	199579	2278085	56650·3	900709·0	11·414	4·513
36	29	186109	2091976	53984·8	844058·7	11·241	4·535
37	30	173370	1918606	51461·9	790073·9	11·066	4·557
38	31	161332	1757274	49420·3	738612·0	10·892	4·578
39	32	149924	1607350	46873·6	689191·7	10·721	4·597
40	33	139161	1468189	44358·2	642318·1	10·550	4·616
41	34	129086	1339103	42516·6	597959·9	10·374	4·632
42	35	119558	1219545	40678·4	555443·3	10·200	4·646
43	36	110620	1108925	38381·4	514764·9	10·025	4·653
44	37	102211	1006714	36131·8	476383·5	9·849	4·661
45	38	94362·2	912351·8	33988·1	440251·7	9·669	4·666
46	39	86988·5	825363·3	31904·6	406263·6	9·488	4·670
47	40	80116·4	745246·9	29904·4	374359·0	9·302	4·673
48	41	73669·7	671577·2	27952·0	344454·6	9·116	4·676
49	42	67628·2	603949 0	26421·1	316502·6	8·930	4·680
50	43	61990·9	541958·1	25228·8	290081·5	8·743	4·679
51	44	56677·2	485280·9	23769·8	264852·7	8·562	4·673
52	45	51731·0	433549·9	22060·4	241082·9	8·381	4·660
53	46	47116·4	386433·5	20442·5	219022·5	8·202	4·649
54	47	42847·3	343586·2	18920·9	198580·0	8·019	4·635
55	48	38901·4	304684·8	17496·2	179659·1	7·832	4·618
56	49	35257·6	269427·2	16152·9	162162·9	7·642	4·599
57	50	31871·8	237555·4	14914·1	146010·0	7·453	4·581
58	51	28753·3	208802·1	13730·6	131095·9	7·262	4·559
59	52	25863·3	182938·8	12614·1	117365·3	7·073	4·538
60	53	23209·3	159729·5	11566·1	104751·2	6·882	4·513
61	54	20775·0	138954·5	10584·4	93185·1	6·689	4·485
62	55	18545·6	120408·9	9543·5	82600·7	6·493	4·454
63	56	16516·1	103892·8	8689·1	73057·2	6·290	4·423
64	57	14662·6	89230·22	7793·7	64368·1	6·085	4·390
65	58	12980·8	76249·42	7059·5	56574·4	5·874	4·358
66	59	11449·9	64799·52	6376·6	49514·9	5·659	4·324
67	60	10059·2	54740·32	5743·1	43138·3	5·442	4·288
68	61	8798·61	45941·71	5154·9	37395·2	5·221	4·250
69	62	7658·53	38283·18	4614·0	32240·3	4·999	4·210
70	63	6630·12	31653·06	4117·4	27626·3	4·776	4·167
71	64	5705·06	25948·00	3662·6	23508·9	4·548	4·121
72	65	4875·55	21072·45	3247·5	19846·3	4·322	4·071
73	66	4134·29	16938·16	2870·0	16598·8	4·097	4·015
74	67	3474·46	13463·70	2526·6	13728·8	3·875	3·951
75	68	2889·68	10574·02	2215·5	11202·2	3·659	3·877
76	69	2373·97	8200·046	1858·2	8986·73	3·454	3·786
77	70	1927·05	6272·996	1530·6	7128·53	3·255	3·699

TABLE IV.—*(Continued.)*

Ages. H	Ages. W	D	N	P	K	AB	Pension.
78	71	1548·02	4724·976	1227·6	5597·93	3·052	3·616
79	72	1231·20	3493·776	1007·9	4370·33	2·838	3·549
80	73	964·460	2529·316	829·93	3362·43	2·623	3·486
81	74	740·129	1789·187	669·44	2532·50	2·417	3·422
82	75	556·528	1232·659	533·90	1863·06	2·215	3·348
83	76	406·840	825·8186	429·60	1329·16	2·030	3·267
84	77	286·372	539·4466	309·06	899·557	1·884	3·141
85	78	196·323	343·1236	215·47	590·497	1·748	3·011
86	79	130·755	212·3686	144·79	375·027	1·624	2·868
87	80	84·5347	127·8339	95·338	230·237	1·512	2·724
88	81	52·8860	74·9479	56·520	134·899	1·417	2·551
89	82	32·5052	42·4427	33·195	78·3794	1·306	2·411
90	83	19·5491	22·8936	19·082	45·1844	1·171	2·311
91	84	11·4981	11·3955	11·739	26·1024	·991	2·270
92	85	6·3083	5·0872	6·8636	14·3634	·806	2·277
93	86	3·2100	1·8772	4·3097	7·4998	·585	2·336
94	87	1·3529	·52432	2·1297	3·1901	·388	2·358
95	88	·44325	·08107	·86298	1·0604	·183	2·392
96	89	·08107	·00000	·19740	·19740	·000	2·435

TABLE V.

Showing the present values of Members' future Subscriptions payable by monthly Instalments during the Joint Lives of themselves and their Wives, and the present values of Reversionary Pensions to the Wives after the Deaths of their Husbands, such Pensions to be payable by Half-yearly Instalments in advance, and to be reduced to one-half on their Re-marriage, computed at 4 per Cent. on the supposition that the average age of the Members exceeds that of their Wives by 7 years, and according to the Rates of Mortality and Marriage stated at the heading of the last Table.

Member's Age.	Future Subscription.	Reversionary Pension.	Member's Age.	Future Subscription.	Reversionary Pension.
20 to 21	14·280	4·019	24 to 25	13·622	4·172
21 „ 22	14·104	4·062	25 „ 26	13·466	4·211
22 „ 23	13·940	4·099	26 „ 27	13·309	4·250
23 „ 24	13·782	4·134	27 „ 28	13·149	4·290

TABLE V.—*(Continued.)*

Member's Age.	Future Subscription.	Reversionary Pension.	Member's Age.	Future Subscription.	Reversionary Pension.
28 to 29	12·987	4·328	62 to 63	6·849	4·438
29 „ 30	12·823	4·365	63 „ 64	6·646	4·407
30 „ 31	12·658	4·398	64 „ 65	6·437	4·374
31 „ 32	12·485	4·428	65 „ 66	6·225	4·341
32 „ 33	12·309	4·455	66 „ 67	6·008	4·306
33 „ 34	12·132	4·478	67 „ 68	5·790	4·269
34 „ 35	11·959	4·501	68 „ 69	5·568	4·230
35 „ 36	11·786	4·524	69 „ 70	5·345	4·188
36 „ 37	11·611	4·546	70 „ 71	5·120	4·144
37 „ 38	11·437	4·568	71 „ 72	4·893	4·096
38 „ 39	11·265	4·587	72 „ 73	4·667	4·043
39 „ 40	11·093	4·612	73 „ 74	4·444	3·983
40 „ 41	10·920	4·624	74 „ 75	4·225	3·914
41 „ 42	10·745	4·639	75 „ 76	4·015	3·832
42 „ 43	10·571	4·649	76 „ 77	3·812	3·742
43 „ 44	10·395	4·657	77 „ 78	3·612	3·658
44 „ 45	10·217	4·664	78 „ 79	3·403	3·582
45 „ 46	10·036	4·668	79 „ 80	3·188	3·518
46 „ 47	9·853	4·671	80 „ 81	2·978	3·454
47 „ 48	9·667	4·675	81 „ 82	2·774	3·385
48 „ 49	9·481	4·678	82 „ 83	2·581	3·307
49 „ 50	9·295	4·679	83 „ 84	2·415	3·204
50 „ 51	9·110	4·676	84 „ 85	2·274	3·076
51 „ 52	8·930	4·666	85 „ 86	2·144	2·940
52 „ 53	8·749	4·655	86 „ 87	2·026	2·796
53 „ 54	8·569	4·642	87 „ 88	1·922	2·637
54 „ 55	8·383	4·626	88 „ 89	1·820	2·481
55 „ 56	8·195	4·609	89 „ 90	1·696	2·361
56 „ 57	8·006	4·590	90 „ 91	1·539	2·291
57 „ 58	7·815	4·570	91 „ 92	1·357	2·273
58 „ 59	7·626	4·548	92 „ 93	1·153	2·307
59 „ 60	7·435	4·525	93 „ 94	·945	2·347
60 „ 61	7·244	4·499	94 „ 95	·743	2·375
61 „ 62	7·049	4·470	95 „ 96	·550	2·414

TABLE VI.

Showing the value at 4 per Cent. of the future Subscriptions of the Members living on the 1st of January 1850, (omitting the Annuitants,) and the then value of the Reversionary Pensions to their Wives.

Year of Member's Birth.	Age on 1st Jan. 1850.	No. of that Age.	Value of each £1 future Subscription.	Value of each £1 Reversionary Pension.	Total Value of future Subscription at £1 each.	Total value of Reversionary Pension at £1 each.
1780	69 to 70	1	5·345	4·188	5·345	4·188
1781	68 „ 69	1	5·586	4·230	5·568	4·230
1788	61 „ 62	3	7·049	4·470	21·147	13·410
1791	58 „ 59	2	7 626	4·548	15·252	9·096
1794	55 „ 56	2	8·195	4·609	16·390	9·218
1795	54 „ 55	1	8·383	4·626	8·383	4·626
1796	53 „ 54	1	8·569	4·642	8·569	4·642
1797	52 „ 53	1	8·749	4·655	8·749	4·655
1798	51 „ 52	3	8·930	4·666	26·790	13·998
1799	50 „ 51	3	9·110	4·676	27·330	14·028
1800	49 „ 50	3	9·295	4 679	27·885	14·037
1801	48 „ 49	3	9·481	4·678	28·443	14·034
1802	47 „ 48	8	9·667	4·675	77·336	37·400
1803	46 „ 47	2	9·853	4·671	19·706	9·342
1804	45 „ 46	3	10·036	4·668	30·108	14·004
1805	44 „ 45	10	10·217	4·664	102·170	46·640
1806	43 „ 44	5	10·395	4·657	51·975	23·285
1807	42 „ 43	15	10·571	4·649	158·565	69·735
1808	41 „ 42	15	10·745	4·639	161·175	69·585
1809	40 „ 41	12	10·920	4·624	131·040	55·488
1810	39 „ 40	8	11·093	4·612	88·744	36·896
1811	38 „ 39	16	11·265	4·587	180·240	73·392
1812	37 „ 38	16	11·437	4·568	182·992	73·088
1813	36 „ 37	9	11·611	4·546	104·499	40·914
1814	35 „ 36	5	11·786	4·524	58·930	22·620
1815	34 „ 35	6	11·959	4·501	71·754	27 006
1816	33 „ 34	8	12·132	4·478	97·056	35·824
1817	32 „ 33	7	12·309	4·455	86·163	31·185
1818	31 „ 32	4	12·485	4·428	49·940	17·712
1919	30 „ 31	6	12·658	4·398	75·948	26·388
1820	29 „ 30	6	12·823	4·365	76·938	26·190
1821	28 „ 29	12	12·987	4·328	155·844	51·936
1822	27 „ 28	9	13·149	4·290	118·341	38·610
1823	26 „ 27	6	13·309	4·250	79·854	25·500
1824	25 „ 26	12	13·466	4·211	161·592	50·532
1825	24 „ 25	4	13·622	4·172	54·488	16·688
1826	23 „ 24	4	13·782	4·134	55·128	16·536
1827	22 „ 23	3	13·940	4·099	41·820	12·297
1828	21 „ 22	1	14·104	4·062	14·104	4·062
		236			2686·301	1063·017